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PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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FIFTY-SECOND YEAR

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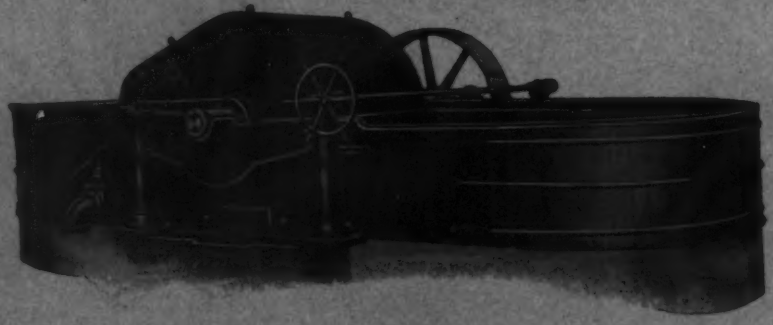

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PAPER TRADE JOURNAL
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Published Every Thursday by the
LOCKWOOD TRADE JOURNAL CO. INC.
LESLIE R PALMER, PRESIDENT · GEO. S MACDONALD, VICE-PRESIDENT & TREAS. · F. K. HOPPIE, SECRETARY
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Want and For Sale Advertisements, Pages 78, 79 and 80

We take pleasure in announcing that the oldest and best known of the American white clay mines, the McNamee mine in South Carolina, which has been in operation since 1868, has merged with our South Carolina mine. Extensive developments are under way which will make it also the largest American mine in production.

Production is under the supervision of our mining engineers, but the old organization is retained, likewise the old policy of honest quality. We offer a reliable supply as to quality and shipments, backed by storage of manufactured clay, and a proven deposit of several million tons.

Sales will be handled exclusively by this Company. We hope to continue the long existing relations many of the paper mills have had with the McNamee Co.

We are ready to supply from these two mines clays suitable for coating and book paper filling. We can furnish lump clay, crushed clay, and clay dried to 1% moisture and pulverized and air floated. And we can give you dependable service each month in the year.

R. T. VANDERBILT COMPANY, Inc
50 East 42nd Street, New York

ESTABLISHED IN 1872

PAPER TRADE JOURNAL

Vol. LXXVIII No. 10 NEW YORK AND CHICAGO Thursday, March 6, 1924

RECEIVER OF CARTHAGE CO. WANTS TO SELL PROPERTY

Charles E. Norris Petitions for Authority and Claims it Would be Impracticable to Operate Plant Longer—Stockholders and Creditors to Appear at Public Hearing at Albany on Friday—Appraisers of Property File Report and Fix Company's Assets at $605,342—Receiver States That Product of Plant Has Been Manufactured and Sold at a Loss Except During the Year 1920.

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., March 3, 1924.—The property of the Carthage Sulphite Pulp and Paper Company will be sold to meet the bonds and liabilities, if the request of Charles E. Norris, receiver, for that right is granted by Federal Judge Frank Cooper. He has petitioned for authority to sell the property and all stockholders and creditors will be given opportunity to appear at a public hearing called for March 7 at Albany.

In the petition filed by the receiver he sets forth his opinion that it would be impracticable to operate the plant and that any attempt to do so would result in loss to creditors. He also claims that it would be impossible to borrow sufficient funds to operate temporarily or permanently, and that the carrying charges are a burden upon the company and upon the creditors. The immediate sale of the property is recommended.

The property has been appraised by C. H. Burrows of Little Falls, James F. Akin of Ogdensburg and Frank L. Moore of this city. Their report fixes the assets at $605,342.

Receiver Norris says that he has made a careful examination of the books of the company covering a period of four years prior to December 31, 1923, and that with the exception of 1920 he found that the product of the plant had been manufactured and sold at a loss amounting to approximately $152,000.

Invite Paper Men to Conference

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., March 5, 1924.—Chairmen of the sub committees of the paper industry who have been interesting themselves in paper simplification and standardization have been invited to attend a conference here by officials of the Simplified Practice Division of the Department of Commerce on March 10. In this connection H. R. Coldwell, of the Division is sending the following letter to the chairmen:

"My letter of February 5th suggested that a meeting of the entire Committee on Paper Simplification be held in Washington in the near future. This proposal has received the approval of a majority of the chairmen of the several sub committees, and the questions of circularization of the industry for acceptances, as well as the formulation of plans for the continuation of the program, are of such importance as to prompt me to submit for your consideration the afternoon of March 10.

"The meeting will be held in Room 709 of the Department of Commerce Building, and will be called to order at 2 P. M. by Mr. Durgin."

PATTEN PAPER CO. SECURES CONTROL OF OUTAGAMIE CO.

Interests of Former Concern, Headed by Judson G. Rosebush, Purchase Interests of Eight Stockholders in Outagamie Company—Formal Transfer to be Made Within a Few Days—A. W. Priest Was Largest Stockholder Outside the Patten Interests—No Announcement Has Been Made Regarding Plans for Operation of the Mill—Paper Mill Has Capacity of 34,000 Pounds of Rag Print a Day.

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., March 4, 1924.—The Patten Paper Company interests, headed by Judson G. Rosebush, Appleton, came into entire control of the Outagamie Paper Company, Kaukauna, last week when Mr. Rosebush purchased the interest of the other stockholders. The deal has not been formally completed but it is expected the formal transfer will be made in a few days.

The Patten interests and eight other stockholders owned all the stock in the mill and Mr. Rosebush now has acquired the interests of the other eight. A. W. Priest, Appleton, president of the company, was the largest stockholder outside the Patten interests. Officers of the company were: A. W. Priest, president; J. G. Rosebush, vice-president; John McNaughton, treasurer; H. S. Cooke, secretary.

The property consists of a papermill, a groundwood mill and a waterpower. The papermill is equipped with eight beaters, two jordans and two fourdriniers with a capacity of about 34,000 pounds of rag print a day. Eight grinders and four wet machines give the ground wood mill a capacity of about 34,000 pounds a day. No announcement has been made of the plans for the mill.

Unfair Competition Charged Against Paper Men

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., March 5, 1924.—Unfair methods of competition are charged by the Federal Trade Commission in a complaint in which the following wholesalers of paper and paper products are named as respondents: Zellerbach Paper Company, San Francisco; Western Newspaper Union, Omaha, Nebraska; Carpenter Paper Company of Utah, Salt Lake City.

The firms, the complaint recites, sell to dealers in Utah, Nevada, Idaho and Wyoming, and control approximately 75 per cent of the wholesale distribution of paper products in such states. Further the complaint states, the competition which would naturally and normally exist between the companies is suppressed and restricted by the respondents combining and cooperating among themselves to maintain fixed uniform prices at which their products shall be sold.

Under the law whenever the Commission has reason to believe that an unfair method of competition has been used against the public interest, it must issue its complaint. However, the question whether or not such method has been used is not passed upon by the Commission finally until after respondents have had thirty days in which to answer and the issue has been tried out.

PLANS FOR CANADIAN PAPER MILL MERGER FALL THROUGH

Proposition, However, Gave Buoyancy to Securities on Montreal Exchange—New Measure for Protection of Forests Against Fire Announced—Howard Smith Paper Mills Show Large Increase in Earnings—Brompton Co. Reports Unusually Successful Year—Big Development in Pulp Industry Planned for Saskatchewan—Canadian Government Sets Aside $25,000 for Forest Research.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., March 4, 1924.—It now seems to be generally accepted that the plan for the merger of various pulp and paper companies in the Three Rivers district has fallen through. The proposal gave some buoyancy to pulp and paper securities on the Montreal Exchange for the time but this has now disappeared, and in commenting on the subject The Montreal Star says:

"A combination of circumstances appears to be operating against trading enthusiasm in the paper group at present. The failure of the Laurentide-St. Maurice merger negotiations had a tendency to dampen interest and there are doubts about success even should further efforts be made to get together again.

"It is understood that new promotions are receiving scant encouragement at the present time and authorities expect that in a comparatively short time the situation will have cleared off and brightened up considerably. It is said there are no new Canadian machines of any consequence to come into operation this year."

Radical Change in Forest Protection

The Hon. Honore Mercier, minister of Lands and Forests for the Province of Quebec, has given notice of a measure to provide for a different system of protection for forests against fire. This bill promises to be one of the most important in the history of the province for many years. The province of Quebec gets its biggest revenue, except from the Quebec Liquor Commission, from its vast forests, but of late years these forests have been suffering terrible damages because of fire. Up to the present, the work of protecting timber limits has developed on the companies getting the concession for the cutting of timber. This system has not turned out well and the Government has now devised a plan by which it will take over the work of forest protection itself. The Government will also divide the province of Quebec into sections, one defining forest areas, and the other defining areas suitable to farming. The object is to keep the colonist and the lumberman restricted to the areas best suited for their respective purposes.

Howard Smith Earnings Higher

In its annual financial report covering the year ended December 31, 1923, Howard Smith Paper Mills, Limited, shows considerably higher earnings than in either of the two preceding years. Operating profit was $767,377, as compared with $691,370. Sundry revenue of $5,429, comparing with $2,169, brought total income to $772,807, as compared with $693,540. Bond interest required $220,466 and general interest $49,494. The sum of $60,287 was allowed for depreciation as compared with $95,491 the preceding year. These deductions left a balance of $442,560, as compared with $400,108. Payment of preferred dividends amounting to $221,622, left a balance of $100,938, but this together with the previous balance of $16,065 was completely wiped out by the appropriation of $78,180 to sinking fund, and $38,823 to reserve and contingent funds.

Brompton Company's Annual Statement

The annual statement of the Brompton Pulp and Paper Company is the best in the history of the organization, with the exception of the boom year in 1920. The net earnings for the year ended December 31, 1923, after depreciation, bond interest and regular preferred dividends, was $995,111, or equal to $7.10 per share on the common stock. Even after the payment of all the arrears on the preferred stock, there remained a surplus of $835,111, equal to almost $6 per share on the common. Perhaps the most striking feature of the exhibit is the further sharp improvement in the working capital position of the company. Taken as a whole, current liabilities show a decrease of $880,636, while at the same time current assets show an increase of $96,625. The net change is an increase of $977,261 in net working capital, which is shown in the 1923 statement at $2,799,520, as compared with $1,822,259 in the previous year.

Aeroplane Surveyed Great Pulpwood Area

Last winter "The Chicago Tribune" purchased from the Quebec Government two thousand square miles of pulp wood limits on the Manichouagan River in Quebec. To exploit this tract "The Tribune" acquired water power rights on the Outarde River. The Outarde River, leaping a score of falls, pours into the Gulf of St. Lawrence through several channels. In its turbulent drop of 200 feet in a few miles it is too swift for boats. Dense forests and impenetrable underbrush clothe its steep banks to the water's edge. Baffled by these handicaps the surveyors struggled for months to work out a plan for harnessing this net-work of torrents. Seeking light on the subject the engineers had recourse to the airplane. From hazardous airplane inspection carried on over waterfall and forest and from the photographic records of the trip it was possible to solve problems which had defied the surveyors. Dams can be so placed as to concentrate the water in one narrow gorge. Furthermore, the heavy power plant machinery can be floated right to the spot where it will be used. It is expected that the initial development will produce 100,000 hp. for the use of a sawmill, a mill for grinding logs to pulp, and for heating the projected town.

Nashwaak Pulp Changes

The Nashwaak Pulp and Paper Company, St. John, N. B., of which Howard E. Beedy is vice-president, have completed changes and additions to their plants and during the present month they expect to have the second drying machine in operation which will materially increase the output. The mill is running at full capacity at the present time and no difficulty is being experienced in disposing of the production of bleached sulphite. The company is also conducting extensive pulpwood and timber operations in the bush.

Big Saskatchewan Developments

That Saskatchewan was on the eve of a big development in the pulp industry the royal commission on pulp wood was told, at a session in Prince Albert, Sask., when James H. Anderson, veteran lumberman, gave evidence. Charles MacFayden, forestry inspector for the province, furnished the commission with particulars of timber in Saskatchewan. He said 113,000 square miles, out of a total of 256,000, were timber. He estimated that there are 25,000 square miles of merchantible timber.

Forest Research

A sum of $25,000 has been set aside by the Canadian Government for the furtherance of a scheme to establish a bureau of forest research in various parts of the province of Quebec. A paper school at Quebec, and one of the government nurseries will probably be established, where methods of encouraging the growth of trees by both natural and artificial methods will be studied during the present season.

Revenue from Forests

A total revenue of $3,643,507 from the 8,387,918 acres of Crown lands and forests of the Province of Quebec, covering the year ending June 30th, 1923, according to the annual report of the Department.

Three and a half million dollars, or nearly 20 per cent of the whole revenue of the province, is the estimated direct gain from the timber resources of British Columbia during the coming fiscal year. Timber licenses are expected to produce $1,250,000, timber royalties $1,600,000, timber scales $350,000, and timber leases $100,000.

Sulphite Mill for Prince Rupert

Plans have been prepared and machinery ordered for a complete 90-ton sulphite pulp plant to be erected at Prince Rupert, B. C., by the Prince Rupert Sulphite Fibre Company, Limited. It will take seven or eight months to get the machinery, some of which has had to be ordered in Europe. In the meantime, the site will be prepared and the buildings erected, and the work on this is to be started in a short time.

Seed Extraction Plant

The seed extraction plant of the Federal Government at New Westminster, B. C., has been closed down for the season. The output of the plant was made up of 3,700 pounds of Douglas fir, 1,250 pounds Sitka spruce, 30 pounds of red cedar, 6 pounds of hemlock and 200 pounds of other varieties of seed. About 2,600 pounds are to be sacked and forwarded shortly to various points in the Dominion and the United Kingdom.

Big Paper Deal On

The papers here give prominence to a statement that negotiations are in progress leading up to the purchase of the assets of leading Canadian producers of fine paper and that up to the present time, these negotiations have been successful, and definite terms are now being discussed. The plan calls for the formation of a large new company backed by American and Canadian capital, which will absorb as operating and physical entities Howard Smith Paper Mills, Limited, of Montreal, and Provincial Paper Mills, Limited, of Toronto, and possibly one or more other companies not yet named. None of these company interests, it is understood, are acting as principals in the negotiations, the plans being developed under the guidance of the international group above referred to.

Gain in Fraser Profits

The financial statement of Fraser Companies, Limited, for the year 1923, will be forwarded to shareholders in the course of the next week or so. It is understood that the earnings for the past year will show an increase of approximately $500,000 over those of the previous year, which would bring the total to over $1,300,000, as compared with $804,000 for the year 1922. The increase is due mainly to an improvement in the lumber business, as, on the whole, the pulp business of the company, was not carried on under very favorable conditions during the latter part of the year. Another favorable feature of the report it is expected will be the fact that there was no loss on inventories during 1923 as was the case in 1922. The earnings should prove sufficient to meet all charges and to leave a substantial surplus on the year's operations.

For Forest Protection in Wisconsin

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., March 4, 1924.—Forest fires in 1923 burned over 49,422 acres of land in Wisconsin in 1923, according to figures made public by the state conservation commission. Much of the land burned over was devoted to raising jack pine, used in the manufacture of kraft paper.

Paper manufacturers and conservation officials are agreed that drastic steps must be taken to halt this wanton waste of woodland. Thus far Wisconsin has not taken definite steps toward reforestation, despite agitation toward that end for many years, and as a result the annual cut of logs, with the destruction caused by fire, has decreased the timber and wood supply of the state almost to a vanishing point. No estimate has been made of the loss of wood caused by the forest fires.

Canada's Pulp and Paper Exports in January

The regular reports of the Canadian Pulp and Paper Association states that exports of pulp and paper in January were valued at $10,900,050. This was a decline of $774,138 from the total for December, but was greater than the total for January, 1923, by $601,807.

Details for the various grades of pulp and paper are given below for January, 1923 and 1924.

	January, 1923		January, 1924	
Paper:	Cwts.	Value	Cwts.	Value
News print	1,655,783	$6,134,827	1,874,167	$7,089,061
Book paper	4,162	26,077	1,986	13,633
Wrapping	18,723	146,762	36,181	266,490
Bond and writing	739	8,720	1,776	20,377
All other	.....	288,539	.....	431,678
		$6,604,975		$7,821,239
Pulp:				
Mechanical	597,848	$994,917	275,027	$500,817
Sulphite, bleached	273,766	1,201,330	233,726	903,410
Sulphite, unbleached	313,847	811,262	386,314	1,026,563
Sulphate	212,031	585,759	218,989	648,021
	1,397,492	$3,693,268	114,056	$3,078,811

The exports of pulpwood in January amounted to 79,405 cords vauled at $865,089, compared with 53,416 cords valued at $614,925, exported in December, 1923.

Figures for the twelve months ending January 31st, 1924, show a considerable increase in the quantities and value of pulp and paper exports over those for the previous twelve months as will be seen from the following tables:

	12 Months Ending January, 1923		12 Months Ending January, 1924	
Paper:	Cwts.	Value	Cwts.	Value
News print	19,492,050	$69,531,292	22,977,629	$86,565,492
Book paper	35,739	251,003	47,142	353,512
Wrapping	357,148	2,676,966	424,717	3,207,685
Bond and writing	12,717	138,747	24,259	252,192
All other	.....	3,455,395	.....	4,608,340
		$76,053,403		$94,987,221
Pulp:				
Mechanical	6,320,879	$9,264,929	6,499,319	$11,105,223
Sulphite, bleached	2,958,446	12,122,441	3,157,426	13,276,300
Sulphite, unbleached	4,260,372	10,657,098	4,633,132	12,621,396
Sulphate	2,982,607	9,242,634	2,933,864	9,416,020
	16,522,304	$41,287,102	17,223,741	$46,418,939

The quantity of pulpwood exported in the twelve months ending January, 1924, was 1,330,406 cords, valued at $13,094,207, compared with 1,078,566 cords, valued at $10,858,705 in the preceding twelve months.

Undervaluation of Paper Imports

Under the caption, "Import Crisis—An Emergency Service," Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, has sent the following announcement to members of the Association:

"The seriousness of the paper imports situation, with wrong classification, dumping and actual undervaluation of foreign importations, has forced emergency action by the American Paper and Pulp Association.

"The ordinary activities of the Information Service, and the publication of the monthly bulletin will be discontinued temporarily, and Mr. Warren B. Bullock thereby relieved to devote his attention to the import situation in both pulp and paper. He will go into the field at once making investigations at ports of entry to secure the evidence necessary to check the abuses of the customs laws."

In discussing this action, Dr. Baker said:

"We have been working on this matter for months, to determine the exact situation as regards imports of foreign paper. Mr. Bullock has paid visits to Philadelphia and other ports of entry, and spent part of the present week in Boston, where he found as at other ports, that every effort is being made by the importers to bring in paper under classifications that constitute an evasion of the payment of the proper duty. Our decision to have him devote his entire time to this work is the result of these preliminary investigations."

SEVERAL PRICE RECESSIONS REPORTED BY PHILADELPHIA

Vigorous Competition and Arrival of Larger Volume of Stock Cause Trade Changes—Coarse Paper Division Addressed by Two National Officials—Court Asked to Declare Paper Mill a Nuisance—John Curry to Celebrate Fiftieth Anniversary at Close of Month—Fine Paper Distributors Have Largest Representation at Second Annual Graphic Arts Banquet Which Is Big Success.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., March 4, 1924.—No sensational feature marked the course of the paper trade during the week in either the fine or wrapping paper divisions. Due largely to a large volume of stock coming into the coarse paper market from the mills than it can readily digest and also because of the very vigorous competition among coarse paper houses to get orders, some price recessions in these lines developed. Offerings were made during the week of gray bogus wrapper as low as 2¼ cents per pound and screening fibres were quite plentiful at 3 cents. A reduction also was announced in 36 inch corrugated straw in rolls of 250 lineal feet on the basis of $2.40 while thousand sheet roll toilet papers can be purchased as low as $4.90 per case, side walk delivery. A slight recession also developed in white wove writing of the kind largely used by envelope manufacturers and it is now being quoted a shade under the price to which it fell last December. The latter is the only line of the higher grade papers which was effected during the week. The fine paper dealers do not look forward to any material change in quotation among the higher grade of fine papers.

Ridgway and Schoenbucher Speak

Exceptionally large attendance characterized the meeting on Thursday noon of last week of the coarse paper division of the Philadelphia Paper Trade Association held in the Bourse and attracted by the presence of William C. Ridgway, Secretary and N. A. Schoenbucher, cost accounting expert of the National Paper Trade Association. Attracted to the city by the condition of near demoralization existing in some spots, the two officials of the National body came to the city to confer with the whole coarse paper trade with a view of pointing out the way of relief. They avoided any suggestion of a uniformity and increase of prices and they addressed themselves particularly to the proposition of cost finding feeling certain that if the trade and particularly the smaller houses, which do no employ accountants for themselves, were made to realize the actual cost of doing business the whole question of doing that business on a profitless basis probably would adjust itself. Mr. Schoenbucher had a vast amount of information covering the cost of doing business all over the United States and the presentation of his statistics was impressive. Mr. Ridgway also threw much helpful light on the situation.

Claim Paper Mill a Nuisance

Residents of Tacony, through their attorney, Francis Shunk Brown, applied to Common Pleas Court No. 4 during the week asking a restraint against Louis J. Kolb, owner of a paper manufacturing plant in Tacony on the ground that the paper mill is a nuisance. Two residents in the district were individual complainants against the plant which manufactures and converts paper used in bread wrapping for the large bakeries known as "Kolb's Factories," scattered throughout the city. Adjoining the property of Mathew Tobin and his wife at 5814 Tacony street is the large paper plant of the Kolb Bakeries and the Tobins contend that the locality is strictly a residential district and that the operation by Kolb of the paper plant is a nuisance, an unbearable annoyance to the neighborhood and lessens the values of homes and other property nearby because of its noises and the odors arising from it. The Court also was informed that the roar of machinery in the plant operated on a day and night basis and Sundays, interferes with the rest and enjoyment of the Tobins and other residents. Owen J. Roberts, representing Mr. Kolb alleged the objections raised by Tobin were greatly exaggerated. The three judges in the court suggested that the attorneys make an earnest effort to adjust the differences in the case and if not successful that the court will then make formal adjudication.

Curry Celebrates Fiftieth Anniversary

At the close of the month there will be celebrated the fiftieth anniversary of the entrance into business of John Curry, who is known to all the paper trade and who does much of its hauling. The firm specializes in receiving consignments of club cars of freight, attending to the apportionment of the paper and often its delivery direct from the cars to the consumer. In this wise it has among its patrons 52 paper mills. John Curry who established the business a half century ago still is interested in it, but the active management is conducted by his son, Dennis Curry, brother of Thomas F. Curry of the D. L. Ward Company.

Paper Men at Graphic Arts Rally

Fine paper distributors holding membership in the Paper Trades Division of the Typothetæ of Philadelphia and in the Paper Trade Association of Philadelphia, exceeded by far in number any of the supply trades present at the memorable Second Annual Graphic Arts Night Banquet, held on Thursday evening of last week in the auditorium of the Manufacturers' Club. There were three speakers, Charles R. Wiers, vice-president of the Direct Mail Advertising Association, and also vice-president of the De Long Hook and Eye Company of this city; Edward A. Kendrick, president of the Redfield, Kendrick, O'Dell Company, printers, New York, and Arthur Bittong, a humorist and entertainer and a verbal caricaturist who provoked incessant laughter in his review of the addresses of the preceding speakers.

The list of guests included executives and members of the accounting rooms and sales organizations of all the fine paper houses of the city holding membership in the Paper Trade Association of Philadelphia and in the Typothetæ of Philadelphia, and the one or two fine paper houses not affiliated with either of these organizations. George W. Ward, president of the D. L. Ward Co., was chairman of the General dinner committee; Harry F. Donahue of the Molten Paper Company, chairman of the seating committee, and Ralph G. Luff of the D. L. Ward Company was the secretary and treasurer.

The burden of the address of vice-president Wiers was for honesty and individuality, frankness and sincerity in all advertising appeals for more character in business, and for better business men in order to secure better business. Mr. Redfield spoke of the three great classes of salesmen, not only in the printing but as well in the paper and in the supplies trades. He described these as being in the competitive, the constructive and the creative classes. Competitive salesmen of printing and of paper were those who worked on a price basis and took away rather than brought anything to the industry, and essentially were mere order takers. The constructive class he pictured, as those who devote themselves to the development of a helpful service, based on the known needs of the customer. The highest class of all however, he said, was the creative who developed original ideas and who supplied needs of the customer of which the customer perhaps, himself, was not aware.

Memorial for W. Murray Crane

[FROM OUR REGULAR CORRESPONDENT.]

PITTSFIELD, Mass., March 4, 1924.—L. A. Haworth of Dalton, chairman of the Berkshire County Committee authorized to raise funds for a memorial to the late Senator W. Murray Crane of Dalton, and to be located in that town, announced Saturday that about $27,000 had been raised for that purpose. The goal was $25,000. The cities of Pittsfield and North Adams and the towns of Dalton and Adams exceeded their allotments.

MATHIESON System

Can You Read Between the Lines?

THE Mathieson Multi-Unit Chlorine Tank Car has been approved by the Interstate Commerce Commission. Our specially designed car carrying fifteen one-ton containers of Liquid Chlorine, instead of a single fifteen-ton tank, is now entitled to the same freight rates and privileges as other tank cars.

To the Pulp and Paper Industry, this decision means official approval of a tank car construction ideally adapted to the safe, economical and convenient use of Liquid Chlorine. The Multi-Unit Car, with its individually-weighed containers of exactly two thousand pounds net, provides an accurate unit measure for preparing uniform bleach liquor. In checking and stock-taking there is never any uncertainty as to the quantity of Liquid Chlorine received or on hand.

Over two years ago we voluntarily went to the expense of designing and placing in service the Multi-Unit Tank Car. Upon refusal of the railroad companies to allow us tank car rates, we appealed to the Interstate Commerce Commission for removal of this discrimination, and continued making shipments in our special car. We have assumed all excess freight charges on every movement of this car and during the past two years have paid out over two hundred thousand dollars in order that consumers and the general public might enjoy the many advantages realized in this type of equipment. The recent ruling of the Commission awards us full reparations with interest and completely vindicates our faith in the Multi-Unit "Safety First" principle.

To those who will read between the lines, the story of the Mathieson Multi-Unit Tank Car will exemplify the sound, constructive policy that has made us the leaders in the Chlorine Industry.

The MATHIESON ALKALI WORKS *Inc.*
25 WEST 43rd STREET NEW YORK CITY
PHILADELPHIA PROVIDENCE CHICAGO CHARLOTTE

EAGLE THISTLE PRODUCTS

Deal Direct with the Manufacturer

Bicarbonate of Soda
Liquid Chlorine-Caustic Soda
Sesquicarbonate of Soda
Bleaching Powder-Soda Ash

CHICAGO TRADE CONDITIONS UNDERGO VAST IMPROVEMENT

Paper Men Declare That February Was Much More Satisfactory Month Than January—Roofing Stock Market Suffers Decline—Paper Companies Stage Two Weeks' Educational Course for Their Patrons—New Paper Sack for Portland Cement Puts in Appearance—Paper Stock Association Postponed Its February Meeting—Seaman Paper Co. Cuts Its Capital Stock.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., March 1, 1924.—Continuation of the steady demand which prevailed over the past few weeks in this paper market is reported by merchants and manufacturers' representatives here for the fine grades of stock. This covers coated, uncoated, writings and bonds of all grades. Some slight gains were experienced through the month of February on higher stocks and as a whole it showed a decided improvement over January. It was pointed out that small orders for immediate delivery comprised a feature of the book paper demand. Mills on the average are in better condition now than they were in January and most of them have between two and four weeks' business on their books unfilled. Practically all are running at normal capacity. Prices remain unchanged. The same level has held sway for about two months up to the present time, with no indications that there will be any upward tendencies.

Slight Sag in Coarse Demand

A little dullness was experienced in the wrapping paper division of the industry here during the last week or so. While mills were operating, up to several days ago, with two to three weeks unfilled orders ahead, they seem to have suddenly caught up and it is said mill representatives are seeking business. The slackening off, however, has not affected prices of wrappings which are now back to approximately the same levels of several months ago. A report has it that mills producing bogus paper instituted an increase just recently. This slight sag in the coarse branch is expected to be only temporary with the demand resuming its steady pace shortly.

Board and container mills are said to be in pretty good shape so far as unfilled orders are concerned. Most mills are operating at normal production with business booked for two or three weeks ahead. Prices are now about $5 a ton higher on boards and containers, although a falling off in waste paper quotations of about $5 a ton may possibly effect a decline in the former within the next week.

Roofing Stock Market Weaker

Some easing off in the demand for roofing stock of late appears certain to bring down prices in the near future, although for the present they are still maintaining the peak levels established over the past several weeks. Authoritative information has it that a decline is looked for, but just what it will be is not ventured. There is plenty of stock to supply the demand.

Two Weeks' Course in Better Printing

Solely for the purpose of creating and stimulating better printing and thus indirectly increasing the need, and consequently the demand, for more book papers, the Chicago Paper Company and the Paper Mills Company, both of this city, combined to support a two-weeks "course" at the Sherman Hotel, Chicago, to which printers were invited.

This course was brought to the city through the co-operation of the S. D. Warren Company, Cumberland, Me., makers of high grade book papers, for which both the Chicago Paper Company and the Paper Mills Company are distributors in the Chicago territory. A room was engaged at the Sherman Hotel for two weeks beginning Monday, February 18, and extending over to Friday, February 29. The Warren company furnished the lectures, while their distributors here did the promotional work. Three meetings each day were conducted, one at 10 a. m., another at 3 p. m., and a third at 7:30 p. m. to make it convenient for everybody connected with a printing establishment in an executive, sales or purchasing capacity, to attend. Salesmen for the Chicago Paper Company and the Paper Mills Company advertised the meetings by word-of-mouth to every printing concern on their lists while letters sent out through the mail further urged attendance. The first week about 63 print shops were represented at the sessions and it was estimated that over 200 were represented during the entire two weeks.

E. B. Bowman, one of the three men the S. D. Warren Company have covering the United States on this plan, delivered the lectures. The same one was given at every meeting, although there were three a day for ten days. Some printers brought their customers to the meeting so that they too might profit by the suggestions and ideas offered. There was no charge for attendance.

The real purpose of these meetings was to sell more paper, although nothing was said about Warren papers. Salesmen of printing establishments were given pointers on the use of the material which Warren produces and how they can create a demand on the part of the consumer for more printed matter with which to broadcast his message. And by this method alone the producer and distributors expect to realize increased sales.

It is expected that another series of meetings of this kind will also be held later on in April. These will be for both the advertising man and the printer.

New Paper Sack for Portland Cement

A new paper sack has been devised and is now in use by one of the larger Portland cement companies for containing cement from producer to ultimate consumer. For some time there has been considerable agitation in the industry for a paper container but thus far none had been perfected which would really prove satisfactory. This new one is water proof, puncture-proof and it will stack as high as cloth. It is corrugated and therefore, prevents sifting in transit. When empty, it can be destroyed and the dealer is not required to use time and spend money getting the container back to the producing point, an advantage which strongly endorses such a paper sack. So far the sack has proven satisfactory and if it continues to do so, it will quickly replace cloth bags in the Portland cement industry.

Seaman Cuts Capital—Increases Directors

It is reported that the Seaman Paper Company, of this city, has decreased its capital stock from $4,000,000 to $3,000,000 and that the board of directors was increased to nine members instead of seven as it has been up to this time.

Activities of the Paper Trade

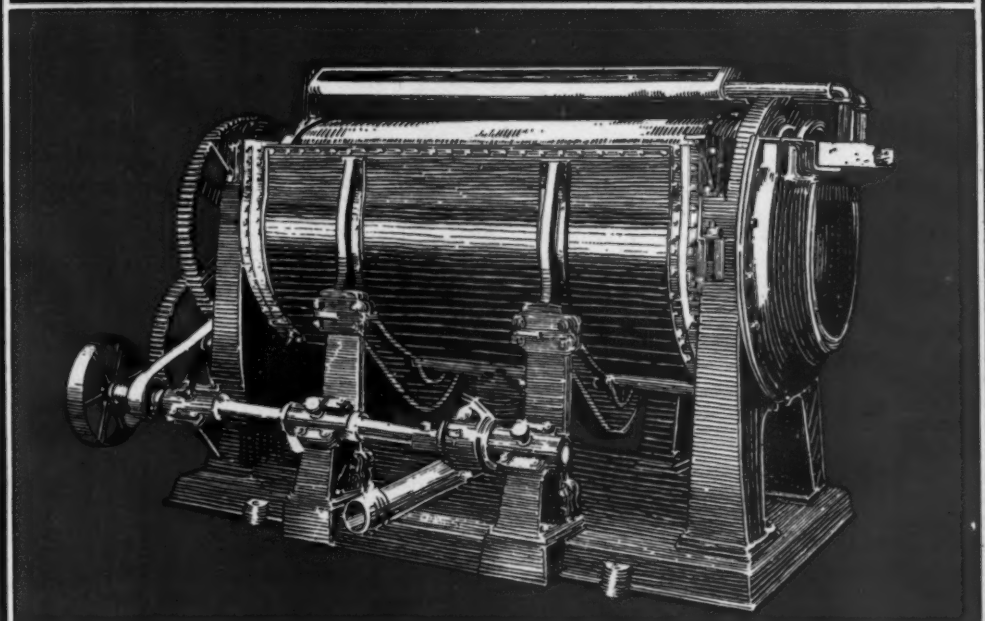
R. H. Knox, president of the Knox and Wolcott Paper Company, at 626 S. Federal street, has returned to his desk, after a long seige of illness.

W. J. Blackley, vice-president of the Messinger Paper Company, Chicago, just returned from an extended business trip through the eastern part of the country. Mr. Blackley was gone about two weeks.

Henry Prosser, of the Bermingham and Prosser Company, paper merchants of the "Windy City," is spending some time at the New York office of the company.

H. W. Suter, assistant sales manager of the Champion Coated Paper Company, Hamilton, Ohio, returned last week from a thirty-day trip in the sunny south.

BIRD SCREENS



UNIFORM QUALITY

TROUBLE in producing a uniform quality of paper is often directly traceable to the screens supplying your machine.

Dirty screen plates, among other things, cause light and heavy streaks. Drying difficulties result. The weight of the finished paper is uneven.

With Bird Screens it is a simple matter to maintain a uniform quality throughout the run. Bird Screens are always clean. The consistency of the stock delivered to the wire is always the same. It is never necessary to shut down the machine to wash up screen plates.

BIRD MACHINE COMPANY

SOUTH WALPOLE ~ MASSACHUSETTS

Western Representative
T. H. Savery, Jr., 1718 Republic Bldg
Chicago, Ill.

Canadian Builders of Bird Machinery
Canadian Ingersoll-Rand Co., Ltd.
260 St. James Street, Montreal, Canada

6177

TRADE IN TORONTO FEELS UNCERTAIN ABOUT FUTURE

Mills Fairly Busy But There Is a General Undercurrent of Hesitation—Ontario Government Arranging for Aerial Patrol of Forest Areas—Legislative Bill to Put Export Duty on Hardwood Logs—Squabble Over Water Power Settled—Abitibi Power and Paper Co. Did Greatly Increased Business During the Past Year—General News of Interest to the Paper and Allied Trades.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, March 3, 1924.—Business in the paper line continues about the same and is still spotty. News print is in good demand and book and writing mills are fairly well employed, but the future is still regarded with a certain amount of hesitation and buyers hesitate to launch out. On the whole, most jobbers report that the volume of trade in nearly all lines for February is ahead of the corresponding month of last year. One leading manufacturer of book paper said that his company expected to do more business than last season and believed that trade would show a steady, increasing turnover, not in any great amount, but still in the right direction. Producing costs were now down to the lowest possible level, economy was the watchword, and there would be a considerable saving effected in coal, the price of pulp and other supplies, which would tend to augment earnings.

The surrender of the old charter of the Provincial Paper Mills Company, Toronto, revived the rumor once more of a merger between that organization and the Howard Smith Paper Mills. The cancellation was, however, purely a formality, as in 1920 the concern changed its name to the Provincial Paper Mills, Limited, dropping the word "Company." It is not denied that some negotiations have been going on but how far they have progressed is a matter of conjecture. It is also learned that, while the Provincial Paper Mills have been considering the installation of a second machine at the Port Arthur branch, the order will not be placed for delivery this season and the matter is still in abeyance.

Coated paper mills are still doing only a fair business but it is hoped the volume will pick up in the near future. The rag and paper stock situation continues active and the outlook is improving.

Aerial Patrol of Provincial Forests

The Ontario government will in a few weeks have thirteen hydroplanes to patrol the forest areas of the province. The aim of the provincial authorities is to encourage capitalists, who are investing money in pulp and paper industries, sawmills and timber limits, by increasing the protection from fire. The government has also plans to make an aircraft survey of the forest areas of Ontario in order to estimate the amount of timber still available and to decide what measure of reforestation is necessary. During the past year the province spent over a million dollars to fight fires but of this sum only eighty-six thousand dollars was devoted to aircraft patrol work, the rest being on land patrol. With the adoption of a larger aircraft service the northern timber areas will be divided into districts so that each district will in a general way have a daily patrol. Thus fires are more likely to be caught in their first stages.

Will Place Export Duty On Hardwoods

Hon. James Lyons, Minister of Lands and Forests, will introduce in the Ontario legislature in a few days a bill providing for an export duty on hardwood logs, which will practically amount to an embargo, so far as the logs cut on Crown lands are concerned. Success of past embargoes, coupled with an increasing invasion of timber limits by United States interests, is the reason for the introduction of the measure. Mr. Lyons said that hardwoods are one of Ontario's best assets. He added that, in the townships contiguous to Sault Ste. Marie, there were over six and a half billion feet of hardwoods and larger and larger invasions of timber limits were being made by U. S: firms, who cut down the hardwood trees and transported the logs across the line for manufacture into the finished product, which process, he declared, should be carried out in the province by local plants.

Water Power Difficulties Settled

Serious differences, which have existed between the Abitibi Power and Paper Company of Iroquois Falls, Ont., and the Hollinger Mines regarding conflicting interests relating to power on the river have been practically settled. A conference was held last week in Toronto with good results. The Abitibi Company feared that the construction plans of the mining company would cause the site of their power lease to be flooded.

Greater Production by Abitibi Company

The profits of the Abitibi Power and Paper Company are likely to show some increase, according to the annual report which will be issued shortly. The company produced four thousand tons more newsprint in 1923 than in 1922 and there will be less deduction for depreciation in the matter of pulpwood than in the two previous years. It is expected that, during 1924, the output of newsprint by the Abitibi mill will be four thousand tons more than the year just passed. New records are being made all the time, and now it is not an infrequent occurrence for the plant to top the five hundred ton mark daily. The mill was originally built with a rated capacity of 425 tons daily and is the largest news print concern under one roof in the world.

Notes and Jottings of the Industry

H. B. Donovan, of Toronto, sales manager of the Canada Paper Company, spent the past week in Montreal on business.

Charles F. Mansell, of Toronto, who is a veteran member of the sales staff of the Howard Smith Paper Mills, is spending a few weeks holidays at St. Peterburg, Florida.

S. R. Armstrong, general manager of the Mattagami Pulp and Paper Co., has returned to Toronto after spending a few weeks in California and other points in the south.

George Carruthers, of Toronto, President of the Canadian Pulp and Paper Association, and I. H. Weldon, of Toronto, former President of the Association, spent a few days in Montreal recently on business.

To further organization of forest protection in Canada, a "Save the Forest Week" has been proclaimed by order-in-council passed by the federal government. The dates are fixed for April 27 to May 3, 1924.

The recent heavy snows have interfered with shipping pulpwood and the hauling of the product to the railway tracks. However, with favorable weather in the early part of March, the usual consignments will soon be going forward.

C. Nelson Gain, general manager of the Garden City Paper Mills, St. Catharines, spent the past few days calling upon the trade in Toronto.

A recent gain of several points in the common stock of the Spanish River Pulp and Paper Mills, on the Toronto stock exchange, revived the old rumor of a possible merger between that company and the Abitibi Company, but nothing definite has developed.

Paper Stock Association Postpones Meeting

Due to sickness among many members of the American Paper Stock Association, the meeting scheduled for the afternoon of Friday, February 29, was postponed until a later date. When the session was called to order by President Joseph Monheit, the attendance was very light, and telegrams were received from outside members stating their inability to be present on account of sickness. After some brief discussion the meeting was adjourned to reassemble at the call of the president within the next few weeks.

FAMOUS PRODUCTS SERIES NO. 14

Valley Iron Works Co. Equipment *is used in* Making Rotoplate

"Rotogravure prints perfect pictures—the universal language." With this formal introduction the Kimberly-Clark Company tells something of the scope of Rotogravure journalism, and emphasizes their remarks with illustrations of the Roto sections of newspapers from over all the country. The article, one of a series appearing in recent issues of the Saturday Evening Post, occupies two full pages. Rotoplate is known the country over as the best paper for its purpose. Voith High Pressure Stock Inlets, Niagara Beaters and other Valley Iron Works Company equipment are used in its manufacture.

Valley Iron Works Co.

New York Office
350 Madison Ave.

Plant:
Appleton, Wisconsin

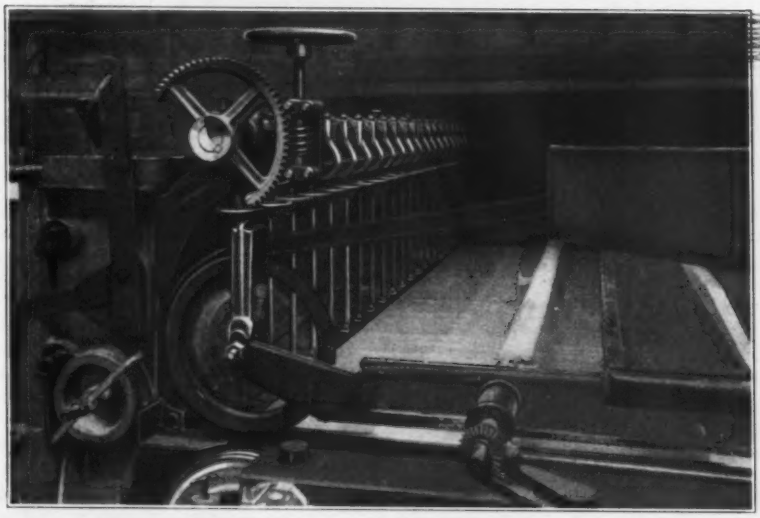
Voith Stock Inlets

1 Make it possible to run a fourdrinier paper machine at any speed desired without pitching the wire.

2 Eliminate aprons and slices and the wear which they give the wire.

3 Makes possible a sheet of even thickness across the entire width of the machine.

Write for further information regarding this remarkable machine.



The above Voith Stock Inlet installation on a machine in the Kimberly-Clark Company plant at Niagara Falls, New York, increased production 50' per minute and resulted in a better paper. This 200" machine makes Rotoplate at a speed of 550' per minute.

See our display in Booth 87, at the Paper Industries Exposition, April 7-12th

THREE INTERNATIONAL CO. PLANTS ARE CLOSED DOWN

Mills at Watertown, Glen Park and Brownville Cease Operations for Indefinite Period and 400 Men Are Idle as Result—Big Steam Plant at Deferiet Operates for First Time—St. Lawrence Great Lakes Deep Waterway Project Seems Assured—Chamber of Commerce Instrumental in Securing Cut in Freight Rates on Wood Pulp—Bagley and Sewall Building Paper Machine for China.

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., March 4, 1924.—The plants of the International Paper Company located in this city and at Glen Park and Brownville were closed down Thursday night for an indefinite period. About 400 men have been made idle, only sufficient employees being retained to protect the properties.

The cause for the shut down could not be ascertained at the local offices but it is understood that the company feels that the condition of the market requires a cutting down of production. No one could give any idea as to how long the shut down would last.

When these mills were closed for a long period a few years ago it was rumored that they would never be reopened and that they were to be sold for other industrial service. The same reports are beginning to gain circulation this time.

Big Steam Plant Operated

The big steam plant of the Northern New York Utilities Inc., at Deferiet, generating 9,000 horse power, has just been completed and placed under temporary operation. Within a few days it will be attached to the great power system of the company which is now a part of an interconnecting system that reaches to Boston. The big auxiliary plant has been under construction since last September. It will be used when there is a necessity for more "juice" than the hydraulic developments will produce.

Two other big developments of the company are also about ready for service. H. G. Davis, head of the electrical department of the company, said Wednesday that the Flat Rock plant on the Oswegatchie river will be ready to throw 8,000 horsepower into the general system within a month. The plant at Herrings, which will also produce 8,000 horsepower, is about completed and will be in operation some time in March.

This means that the power system of the Utilities Company will be 25,000 horsepower stronger next month than it is at the present time. The Flat Rock and Herrings developments were started last spring.

The expansion program of the company does not halt with these additions. Plans are now ready for the development of the Soft Maple Falls site on the Beaver river with a plant capacity of 20,000 horsepower. Bids for the contract will be asked soon and work started in the spring. It will require two years to complete the installation.

Waterway Project "Assured"

Consummation of the St. Lawrence-Great Lakes deep waterway project, which has been of vital interest to this section for several years, is said to be "absolutely assured" now. Charles H. Jackson, field agent of the Northern New York Development League, was in the city Saturday and made the above assertion. He has recently been in conference with President Calvin Coolidge and members of the cabinet, and also took occasion to discuss the subject with Senators and Congressmen from all sections of the country.

"The President seems to have reached the conclusion that it is something the people want. He has been impressed by the fact that there seem now to be more people of New England favoring it at Washington than from the West where he had felt existed the most sentiment. "A poll of the members of Congress disclosed a large majority in favor of the project. I also find that practically all the big men of the country have come out for it. This is a great reversal of conditions a year ago. About the only present opposition is found along the Barge Canal and in Philadelphia, Pa."

Mr. Jackson said that engineers would report next summer and a joint committee would be named. The matter should come before Congress next fall for final action and the work of construction get under way at that time.

Paper manufacturing is one of the major industries along the border on both sides. It is felt that much benefit will come to the trade by the carrying out of this gigantic project. Shipping will be greatly facilitated and enormous electric power distribution at a reduced price is assured from the power plant involved.

Secure Freight Rate Cut

A reduction of two cents a hundred in the freight rate on wood pulp shipped from New York is just obtained by the traffic bureau of the Chamber of Commerce. For some time J. A. Quinlan, chairman of the committee, has been negotiating with the New York Central Railroad Company, and while the concession obtained is pleasing to manufacturers, he holds out encouragement for a further concession later. It means a saving of more than $8,000 to paper manufacturers in this immediate section.

To Build Machine for China

The Bagley & Sewall Company, manufacturer of paper making machines, has just booked an order for a new machine to be used in a mill in China. Edward S. Lansing, assistant to President Stuart D. Lansing, returned Saturday from New York where he signed a contract for the order with the representative of the paper company in Hankow, China.

The machine will be started at once and ready for delivery next June. It is designed for straw board and is 88 inches wide. The local company has made and delivered three of the 10 or 12 paper machines now in use in the land of the Chinese.

At the present time the straw board paper has been made by hand, but it is said that the machine will greatly reduce the cost of production. The new order means increased activities at the local plant.

Salesmen to Consider Important Problems

The most important convention in the history of the Salesmen's Association of the Paper Industry will be held in New York, April 8, when the salesmen of the industry will take up problems of the greatest important to the American mills.

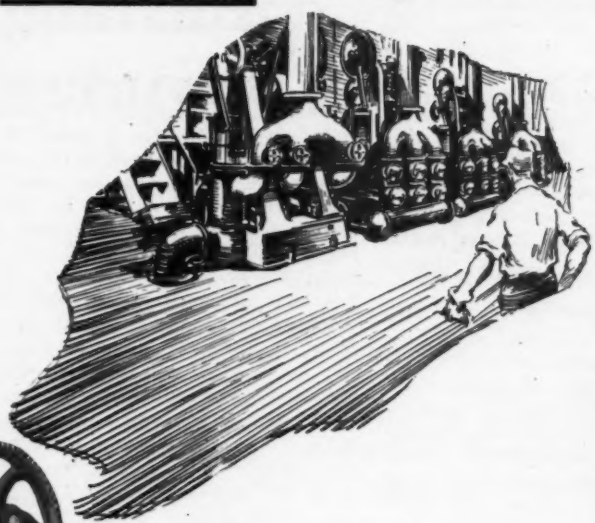
Following up the campaign originated by the American Paper and Pulp Association for the restriction of abuses of the customs laws by the importers of foreign paper, the Salesmen's Association at the Monday meeting which discussed convention plans decided to devote much of the convention program to this matter.

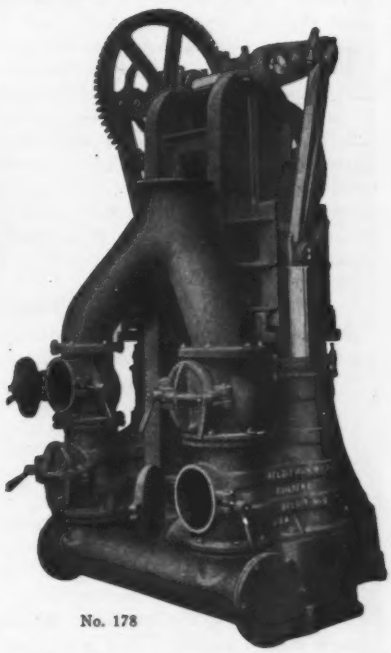
"This, I regard as the most important question before the industry today," said President J. L. Fearing, addressing the Salesmen, "and the Salesmen's Association can do no bigger thing than to get aggressively behind the movement to stop the improper importation of foreign paper."

The American Paper and Pulp Association has been continuing the efforts to restrict violations of the customs acts, the import conference in November being devoted entirely to this important movement. When Warren B. Bullock, who has been assigned to investigate customs bases on behalf of the American Paper and Pulp Association, became temporary secretary of the Salesmen's Association one of his first steps was to have Dr. Baker, executive secretary of the American Paper and Pulp Association, take up this matter with the Salesmen's Association, in an effort to secure the cooperation of the salesmen in the parent organization's work on this problem. The result is the decision of the Salesmen's Association to make the import problem its chief topic of discussion at the coming annual convention.

BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS

The Efficiency Pump for Paper Mills





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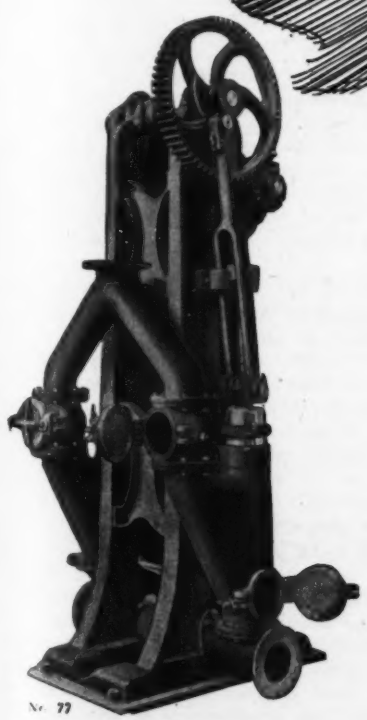


No. 77

BELOIT pumps are called "heavy duty" pumps because they are sturdy and strong. They are built for continuous 24-hour service and are gluttons for hard, steady work. They are regarded as the present-day *efficiency* pump for paper mills.

On our triplex pumps you will find forged steel crank shafts instead of cast steel. Our locomotive type connecting rod (regular equipment on our heavy-duty pumps) takes up the wear on crank and wrist pins while pump is in operation. The self-aligning feature prevents undue strain on cranks or frames.

If ever a part does become broken or worn out after years of hard usage, their construction is so handy that the repair can be effected easily and quickly, without the necessity of buying a considerable portion of a new pump.

Thousands of experienced board makers the world over know that Beloit pumps "deliver the goods."

It will pay you to turn first to BELOIT.

Beloit Iron Works BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS **Beloit, Wis., U. S. A.**

Established 1858

A PAPER AGE

Two-Thirds of the World Consumption of Paper Produced and Used in North America

POUGHKEEPSIE, N. Y., March 4, 1924.—Speaking at the Tuesday noon luncheon of the Kiwanis Club of this city, R. S. Kellogg, secretary of the News Print Service Bureau, presented a very interesting set of facts on the news print paper situation in North America. He spoke in part as follows:

"Before I say anything about news print paper in particular, I would like to call your attention for an instant to the function that paper plays in the world at this stage of our development. We are so used to having paper that scarcely ever do we realize what it means to us. People who dig through ancient history and still more ancient history tell us man has passed through a stone and bronze age into a steel age. We are passing into a paper age. If you have any doubt of that, think what would happen if some great catastrophe should wipe out all the paper that there is in the world. Civilization would be in utter chaos by tomorrow. We absolutely depend upon paper for every kind of purpose, particularly for business purposes, since probably 95 per cent of our business is done through paper and not through cash or actual exchange of commodities.

Paper Not Cheap Until Recently

"Paper is now so cheap and abundant that we don't think about the time when it was not, and yet the memory of a great many men can go back to that time. One of the most remarkable things that we find as we look back into the earlier stages of civilization was the tremendous search for materials upon which human opinion and human records could be written down and used by later generations. The word 'paper' itself comes from 'papyrus,' the name of a water sedge that grows along the Nile in Egypt. For 5,000 years writing material made from papyrus furnished the best recording material the world had—from about 4000 B.C. to 1000 A.D. But this was never true paper. The first real paper was made in China about 1800 years ago.

"It is only within the last fifty years that the world has begun to have enough paper. There never was enough until processes were developed for making paper out of wood instead of rags.

"To show that we are now in a paper age, such figures as we can obtain from official sources indicate that on the 1920 basis the per capita consumption of paper in Russia was 6 pounds. At the same date in Japan it was 12 pounds; in Germany 45 pounds; Scandinavia, 33 pounds; Great Britain, 76 pounds; and in the United States, 150 pounds.

In a Newspaper Age

"More specifically, in addition to being a paper age, we can say, I think, that we are in a newspaper age. In 1880 the per capita consumption of news print paper in the United States was 3 pounds. In 1893 it was 9 pounds. By 1919 it had grown to 35 pounds, and in the year 1923 it was 50 pounds. In the 43 years from 1880 to 1923 it has grown from three to fifty pounds.

"There have been two great things that have led to this—making paper from wood and the development of the rotary printing press. The first newspaper in the United States was published on April 24, 1704. It consisted of 2 sheets, 9 x 12 inches in size. The latest news it had was from London on the preceding December 2, and was about some kind of trouble in Ireland. Ireland has been a good source of news ever since. Today we have printing presses that in a single hour will turn out 48,000, 8-page papers—with each page nearly twice the size of the first paper. Today we have 22,000 newspapers in the United States—and some to spare. I won't say which ones are to spare. We have over 2,000 English-language dailies and with a circulation of 31,000,000 of week-day issues and 21,000,000 of Sunday issues. The average size of the daily papers with over 100,000 circulation is 27 pages, with 100 pages for the Sunday issues. They contain all sorts of material. It takes a great deal to make a big newspaper today. The editor of one of these great journals not long ago gave a talk to a class in journalism at one of our prominent universities. He endeavored to set up his conception of what constitutes news. One of his mathematical formulae ran like this:

> 1 bank clerk plus 1 wife plus 3 children equals zero from a news standpoint.
>
> 1 chorus girl plus 1 bank president minus $100,000 equals news.

2,800,000 Tons Used in United States Last Year

"In 1923 the amount of news print paper used in the United States was 2,800,000 tons. If spread out into one continuous blanket it would cover an area equal to the combined areas of New Jersey, Massachusetts and Connecticut—something over 12,000,000 acres. It would also make a strip 400 feet wide running from here to the moon. You have seen coming down the streets of the city on heavy trucks great rolls of news print. These rolls are as a rule 72 inches wide. The news print paper used in the United States in 1923, if put into one of these rolls and unwound, would stretch 16,500,000 miles or reach to the sun in 5 years and 8 months. Some of you see the *New York Times*. On October 7 last year the Times used 877 tons of paper in printing that one Sunday issue. This much paper would blanket 3,800 acres.

"We have today paper machines that are turning out paper at the rate of over 1,000 feet a minute in a steady stream. We have newspaper presses eating it up even faster.

Influence of Advertising

"Certain interesting developments have been responsible for this absolutely unprecedented use of news print. Advertising has been one of the big ones. Tremendous circulations have had a great deal to do with it. We have today papers that in 20 years have grown from 100,000 to 700,000 or 800,000 circulation. We have printed at this time a copy of a daily newspaper every day for every family in the United States and Canada. There is a daily newspaper habit.

"In 1923 Mexico produced 12,000 tons of news print. Mexico has one modern paper manufacturing plant. Newfoundland, which has a paper mill established by Lord Northcliffe in 1909, during the same period produced 64,000 tons; Canada produced 1,263,000 tons of news print and the United States 1,485,000 tons. So that during 1923 North America produced two-thirds of all the news print paper produced in the world. More than 88 per cent of the Canadian news print went to the newspaper publishers of the United States; 10 per cent was used in Canada. The rest went to the ends of the world; 6,000 tons went to South Africa.

"News print is a one hundred per cent forest product. The highest grade of paper is made from rags. The next highest is made from wood pulp and rags. News print is made entirely from wood. It consists of about 80 per cent ground wood and 20 per cent sulphite pulp. Sulphite is produced by cutting wood up in small chips and cooking it in a chemical solution for six or eight hours. The chemicals dissolve out everything except the pure cellulose. Ground wood is produced by holding bolts of wood against rapidly revolving grindstones. A little coloring usually is added to improve the appearance of the sheet.

"For the past 19 years there has been an average increase over the preceding year of 7 per cent in the combined output of news print paper in the United States and Canada.

Canada's Great Interest

"Canada is watching her output grow with very great interest. It will be close to that of the United States by the end of 1924.

(*Continued on page* 44)

Established 1886

Organization Reputation

The day of miracles is done. The past is the only real guide to the future. What man can do depends largely upon what he has done. And that applies with equal force to business organizations.

You make no mistake, you eliminate all guesswork, in dealing with an institution that has been thirty-eight years in building a reputation for efficiency, and in establishing the character of its service.

You cannot make bricks of straw—at least not in A.D. 1924. If you want quality service, you must seek it among those who are in a position to give it to you.

M. GOTTESMAN & COMPANY

—INCORPORATED—

18 East 41st Street

New York, N. Y.

U. S. A.

European Offices:
Stureplan 13,
Stockholm, Sweden.

Trade-Marks Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade-mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade-Mark Company, Barrister Bldg., Washington, D. C., trade-mark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

HOLLYWOOD—No. 185,826. William R. Hasbrouck, New York. For writing paper in the form of envelopes, tablets and papeteries.

RSL—No. 189,336. Russell Box Co., Chelsea, Mass. For paper boxes.

VEL TEX—No. 171,355. Fort Howard Paper Company, Green Bay, Wis. For toilet paper, paper napkins, paper towels, etc.

FANCIFUL PICTURE—No. 184,483. The Union Lithograph Company, Inc., San Francisco, Calif. For safety papers.

OLD HICKORY—No. 185,798. The Mead Sales Company, Dayton, Ohio. For mimeograph print paper, bulking bookpaper, etc.

SPRINGFIELD SPECIAL—No. 188,100. Powers Paper Company, Springfield, Mass. For printing and writing papers, etc.

"BULL DURHAM"—No. 189,089. The American Tobacco Company, Inc., N. Y. City. For cigarette paper, cut and uncut.

STONE MOUNTAIN—No. 189,274. Thomas F. Rybert Company, Atlanta, Ga. For bond papers.

MOHEGAN—No. 190,161. Hollingsworth & Whitney Company, Boston, Mass. For writing and wrapping paper.

MARVELLEATHER—No. 190,421. The Marvellum Company, Holyoke, Mass. For cover paper.

COON SKIN—No. 190,469. Reese & Reese, Baltimore, Md. For printing papers, etc.

REPRESENTATION OF A BUGLER—No. 190,484. American Writing Paper Company, Holyoke, Mass. For announcement paper, cards, etc.

OLD CAIRO—No. 190,485. American Writing Paper Company, Holyoke, Mass. For announcement paper, cards, etc.,

FOREST OAK—No. 190,486. American Writing Paper Company, Holyoke, Mass. For announcement paper, cards, etc.

DEPENDENCE—No. 190,492. Carew Manufacturing Company, South Hadley Falls, Mass. For writing and printing papers.

MONOPOST—No. 190,525. United States Envelope Company, Springfield, Mass. For envelopes.

BEDAUX B—No. 190,568. The Chas. E. Bedaux Company, N. Y. City. For graph paper.

CHICK—No. 190,671. Capital Paper Company, Indianapolis, Ind. For toilet paper.

A PAPER AGE

(*Continued from page* 42)

The production of news print paper follows cheap wood and cheap power—the prime requisites. At the present time Canada is more fortunate in having these elements than the United States. The industry was developed earlier in the United States. Canada is not so far along in the exploitation stage.

"We have at the present time a producing capacity of 10,000 tons of news print a day in North America, an increase between 60 and 70 per cent in the past six years.

"The unit of supply of the raw material for making news print paper is the cord of wood. About 1½ cords of pulpwood is required for producing a ton of news print paper. Translated into more familiar language, it has been figured out that a cord of wood will furnish 96,000 pages of newspaper of the ordinary size. The great production of news print paper we had in 1923 in North America required about 4,000,000 cords of wood—a pretty good little wood pile.

Should Conserve Forests

"Where are we going to get the wood? Not very long ago I ran across a book written by a man in England in 1890 when wood pulp paper making was just getting into a good stride. He spoke of being able to turn to wood as an inexhaustible source of supply for the future. This is obviously not true. There is no such thing as an inexhaustible supply. We can make such a thing true, but it is not yet. There are no exact statistics on this subject, but of the species of wood we are now using to make paper from, we are supposed to have in the Northeastern States about 25 years' supply of pulpwood at the rate it is now being used. In Eastern Canada at the present rate of consumption we have perhaps not more than 50 years' supply, nobody knows exactly.

"The requirements for a completely self-sustained modern news mill are very much greater than the ordinary man realizes. I mean a plant equipped to make its own ground wood, its own sulphite, and then equipped to take the two and put them into sheet paper with all modern improvements and at the modern rate of production. Such a plant requires about $50,000 investment for every ton of daily capacity to make paper. A plant with a capacity of 100 tons daily on that basis means $5,000,000 of investment. That includes nothing for production of a supply of raw material. Coupled up with this hypothetical plant there ought to be the ownership of sufficient producing forest to supply that plant with 40,000 to 45,000 cords of wood yearly. This might require an additional $5,000,000, making a $10,000,000 investment altogether, or an investment of $100,000 per ton for every ton of daily capacity.

"Now you see something of the magnitude of the problem of manufacturing paper. We must take some thought as to the future of our raw material. Among the paper manufacturers in the United States and Canada and the newspaper publishers there is a more intelligent, a livelier interest in the problems of protection and reproduction of forest resources than there has ever been. It is exceedingly gratifying to note that big paper producing companies are figuring most seriously upon methods of putting their forest lands on a permanently producing basis. Most of the talk about getting paper out of a substitute for wood is beside the point. The thing to do is to keep the forest land of this country producing the wood we need.

"Every one of us has a duty to perform in helping to promote proper forestry measures. After all these years of education and agitation, we are settling down to a practical forest policy for the United States and Canada. Whenever you get a chance to help in that direction you are doing the best possible thing you can do."

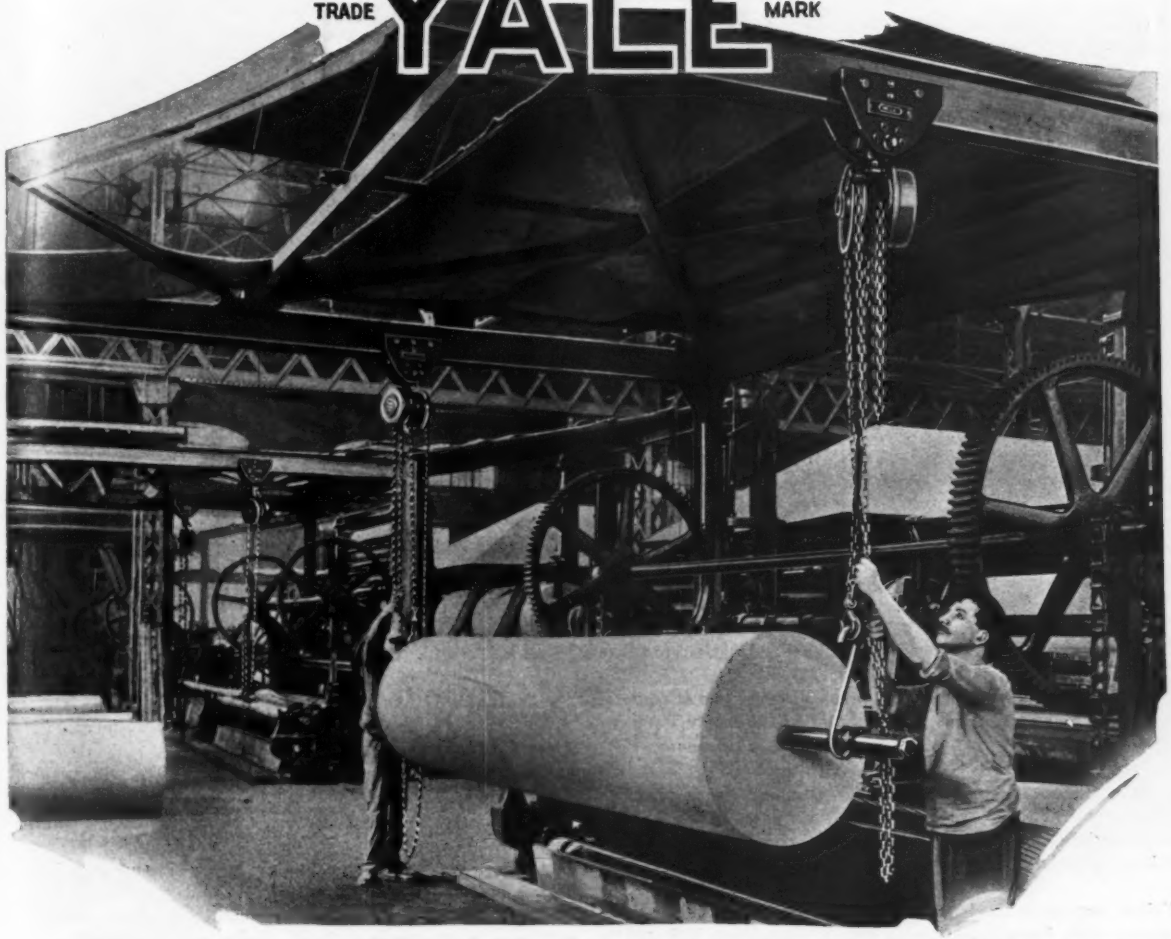
Northern Mills Buy Water Power

APPLETON, Wis., March 4, 1924.—A waterpower capable of generating about 10,000 horsepower was sold last week by the White Rapids Paper Company to the Northern Paper Mills of Green Bay. The waterpower is on the Menominee river, west of Swanson, in Menominee county, Michigan. The White Rapids Paper Co. was organized three or four years ago to take over this waterpower but no announcement ever was made of the use to which it intended to put it.

The sale includes a considerable acreage and several miles of river front. It is rumored that the property is to be used for construction of a pulpmill for the Northern Paper Company, but no definite statement was available from that company. The power is said to be the largest on the Menominee river and is quite easily accessible.

Officers and directors of the Northern Paper Mills were reelected at a recent meeting of stockholders. Officers are W. P. Wagner, president; Earle Murray, vice-president; Judson G. Rosebush, treasurer and general manager; Homer Benton, secretary. Charles Goodman, Marinette, and Louis Schreiber, Oshkosh, with the officers named above, constitute the directorate.

TRADE YALE MARK



YALE CHAIN BLOCKS

Bring Down Production Costs

Notice particularly the efficient Yale chain block, trolley and track arrangement for handling the paper — and the clear, unobstructed floor space.

The economical use of available labor in the paper industry demands efficient methods of lifting and moving rolls.

Yale Spur-Geared Chain Blocks and I-Beam Trolleys, operating on a well planned overhead track system, enable the men to lift heavy rolls of paper easily and safely, and transport them to the calender or storage room without delay.

This system has substantially increased production. It has helped the management overcome the handicap of labor shortage.

And Yale Spur-Geared Chain Blocks, *from hook to hook a line of steel,* absolutely protect the workmen. Yale Blocks are made with ample strength to stand heavy surge loads several times greater than their rated capacity, and *every* Yale Block is tested to 50 per cent overload before it leaves the factory.

The Yale & Towne Mfg. Co.

Stamford, Conn., U.S.A.

Yale Made is Yale Marked

YALE Hoisting and Conveying Systems

New York Trade Jottings

The Salesmen's Association of the Paper Industry held a regular meeting on Monday at which only routine business matters were considered.

* * *

F. H. Bridal, for the past eleven years connected with the Parsons Trading Company, has resigned to become connected with the Kalamazoo Vegetable Parchment Company, 200 Fifth avenue.

* * *

The annual dinner and entertainment of the Metropolitan Bag and Paper Jobbers' Association will be held at the Hotel St. George at 7:30 o'clock Thursday evening, March 13. The price of tickets is $5.00.

* * *

The J. H. Scott Paper Company, Manhattan, has incorporated under New York State laws with 500 shares of common stock of no par value. The incorporators are A. Brooks, P. D. Benson and A. E. Claffey. The attorney is J. McLaren, 154 Nassau street.

* * *

James Rosenberg, president American Woodpulp Corporation, 347 Madison avenue, has filed a petition in bankruptcy with liabilities placed at $73,245 and assets at $11,044, consisting mainly of cash surrender value of insurance policies. The principal creditors are Formica S. A. Zuerich, Switzerland, $45,000, partly secured; Felix Salomon of Hamburg, Germany, $9,300; American Woodpulp Corporation, $9,058, and L. W. Bowmall, $5,000.

* * *

Schedules in bankruptcy of the American Woodpulp Corporation, 347 Madison avenue show liabilities of $221,774; assets, $321,587, main items being notes, $122,557; accounts, $110,497; stock, $31,412; insurance, $39,512. The principal creditors are Guaranty Company of Maryland, $62,355, partly secured; William Schall & Co., $20,346, secured; Tanzer & Lane, $27,762; Durham Paper and Pulp Company, $69,986; Greenwich Bank, $8,500; Irving Bank-Columbia Trust Company, $12,239, partly secured; Emanuel Salomon, $10,000; Manufacturers Trust Company, $6,574, partly secured, and L. W. Bowmall, $5,000.

* * *

Failure reports to Bradstreet's for February reflect betterment as compared with January, noticeable improvement being indicated in the reduced number of crippled banks closing in the northwest. In February, as in January, however, the number of failures and the total of liabilities showed increases over the like months of last year, but the excess in number in February this year over last year is not as great as in the previous month, although February liabilities, like those of January, were about double those of a year ago. The situation, in fact, seems to have become stabilized following the heavy crop after-the-year-end suspensions. There were 1,578 failures reported for the calendar month of February, a decrease of 30 per cent from January, while liabilities totaled $73,752,491, a decline of 32.4 per cent. A year ago in February failures fell 29 per cent from the total for January, but February liabilities this year were nearly double those of February a year ago. That the situation has elements of improvement in it is, however, seen when it is found that while there was a shade more failures in February than a year ago in the New England, Central Western, Southern and far western groups of states. Liabilities, however, in every group were larger than in February a year ago.

Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., March 5, 1924.—The Government Printing Office has received the following bids for 6,000 lbs. of 22 x 25½ No. 16 white declaration bond paper; R. P. Andrews Paper Company at $.338 per lb.; Southworth Company at $.31 and $.36; Reese and Reese, $.2697 and Old Dominion Company, $.3599.

The Government Printing Office has received the following bids for 5,000,000 3¾ x 6¾ manila envelopes: United States Envelope Company, 72 cents per thousand; Oles Envelope Company, 65 cents; Commercial Envelope Company, 66 cents, less 2 per cent; and United States Paper Goods Company, 70 cents.

The Printing Office also received bids for 5,000,000 6½ x 10½ wood manila envelopes: United States Envelope Company, $2.22 per thousand, and United States Paper Goods Company, $2.30.

The Government Printing Office has received bids on 7,800 lbs. of blue, green, salmon bond paper, various sizes, as follows: American Writing Paper Company, $.22 per lb. and $.225; The Broderick Paper Company, $28; Barton, Duer, & Koch Paper Company, $.2375; Old Dominion Paper Company, $.2444; R. P. Andrews Paper Company, $.2385; Esleeck Manufacturing Company, $.28.

The C. L. LaBoiteaux Company has been awarded the contract for furnishing the Government Printing Office with 80,000 pounds (100,000 sheets) of various sizes chip board at $40.15 per ton, bids for which were received on February 15.

The American Writing Paper Company will furnish 7,800 pounds (600 reams) of blue, green and salmon, various sizes glazed bond paper at $.22 and $.22½ per pound, bids for which were received on February 18.

Reese & Reese have been awarded the contract for furnishing the Government Printing Office with 6,000 pounds (250 reams) of 22 x 25½, No. 16 white declaration bond paper at $.2697 per pound, bids for which were opened on February 25.

Vortex Mfg. Co. Gets Decision Against Burt Co.

For the past year, the United States District Court at Buffalo, Honorable John R. Hazel, District Judge, has had before it the case of The Vortex Manufacturing Company of Chicago, versus the F. N. Burt Company, Ltd. of Buffalo, N. Y.

This case has just been decided by Judge Hazel in favor of The Vortex Manufacturing Company.

The Vortex concern brought suit against the Burt Company for an alleged infringement of the Vortex reissued patent No. 15,381, covering the blanks used in making the Vortex paper cups.

The Burt Company, according to the decision handed down by the judge, "entered the field with its paper cone cup in 1918." It was not until the latter part of 1922 that the Vortex Company, failing to dissuade the Burt Company by peaceable means from making a paper cup in a closely similar manner, decided to appeal to the courts.

In its defense, the Burt Company sought to establish four points justifying its action in imitating the Vortex cups. Judge Hazel, in the decision just rendered, declares that none of these points has been established by the pleading of the Burt Company.

In conclusion, Judge Hazel says: "In my opinion—the structure manufactured by the defendant company (Burt) is an infringement. A decree for the plaintiff with costs."

Charles W. Hill's, Sr., Chicago patent attorney, who represented The Vortex Company in the suit, is authority for the statement that the decision broadly holds validity of the Vortex reissued patent and the infringement of the claims in suit.

"Every one of the seven claims involved in the litigation was sustained as valid and infringed," said Mr. Hills.

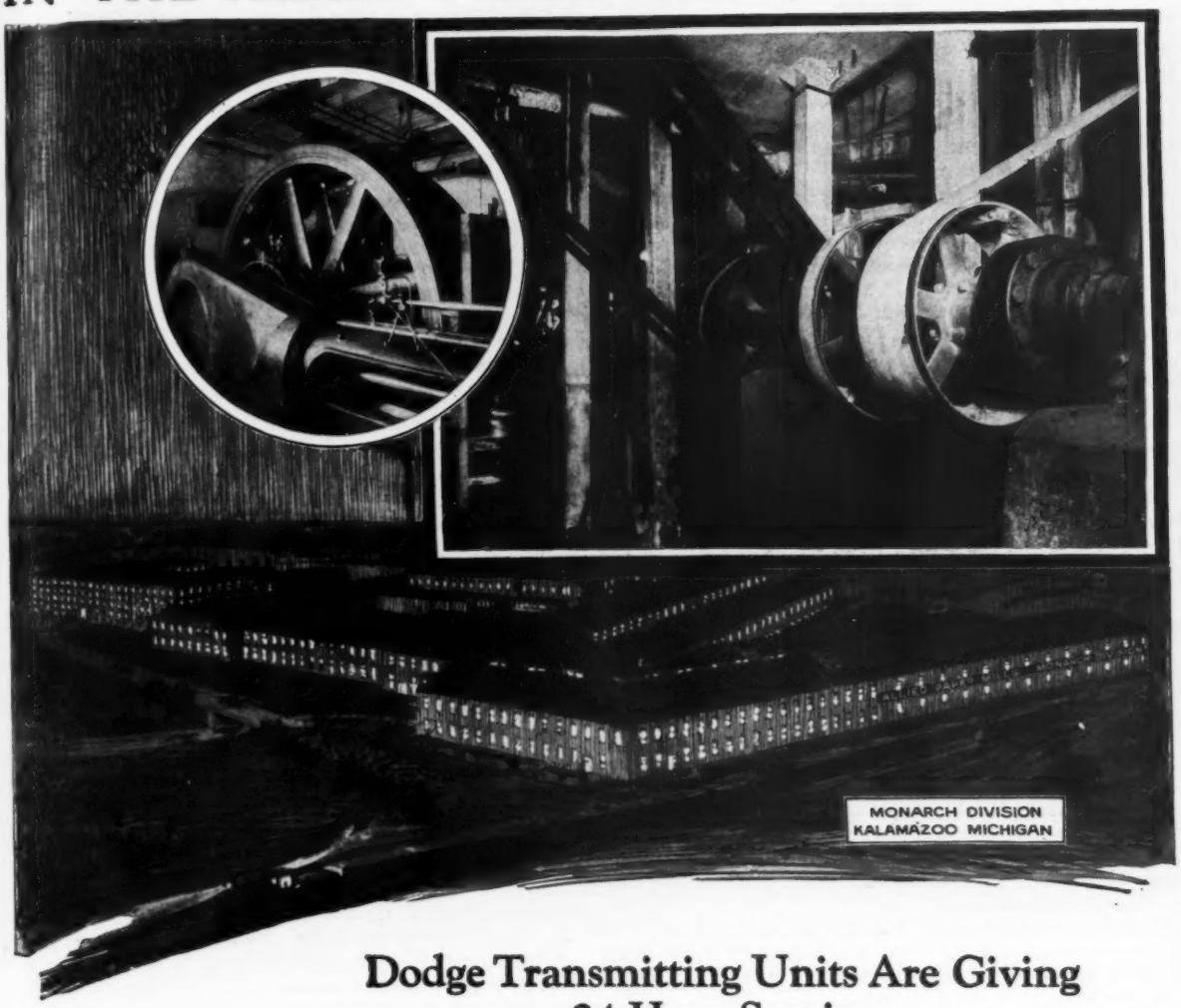
The Vortex Manufacturing Company is now bringing out several new products. It is also making improvements in its present line of cups, at no increased cost of manufacture.

Peshtigo Paper Co. Makes Improvements

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., March 4, 1924.—An overhead "tunnel" carrying five pipe lines from the sulphite mill to the papermill of the Peshtigo Paper Company has been completed. Construction of the bridgework and the pipeline presented a number of interesting engineering features but was finished in short time. Two huge stock tanks also have been built at the mill.

IN THE ALLIED PAPER MILLS, KALAMAZOO



Dodge Transmitting Units Are Giving 24-Hour Service

Alex G. Gilman, Pres. Allied Paper Mills, says:

"Dependable power transmitting machinery is as necessary to the manufacture of paper as is dependable paper to the production of fine printed works. Power costs always have been an item for the careful consideration of the mill executives, and in this period of high material and labor costs and the necessity for maximum production, we must watch every leak, be it power or material. We develop around 9,000 horse power, operate 24 hours six days a week, and trouble in our engine rooms or on our power line would stand us heavy losses."

In the Monarch Division of the Allied Paper Mills at Kalamazoo, Michigan, Dodge pulleys, hangers, bearings and clutches, and rope drive have been rendering 24 hour service, six days a week for 14 years.

Throughout the extensive operating departments of the Allied Mills, Dodge equipment is giving the type of continuous service the business of paper making demands. Dodge means power savings. Plants standardizing on Dodge rank on the plus side of the ledger in power actually delivered to production.

Five hundred local dealers distribute Dodge products on the immediate delivery basis. Trained engineers are always available for expert counsel on the special machinery demands of industry.

DODGE MANUFACTURING CORPORATION

General Offices: Mishawaka, Ind. *Factories:* Mishawaka, Ind., and Oneida, N. Y.

DODGE

EVERYTHING FOR THE MECHANICAL TRANSMISSION OF **Power**

Branches: New York, Philadelphia, Pittsburgh, Boston, Cincinnati, Newark, Chicago, Atlanta, Minneapolis, St. Louis, Houston, Seattle, San Francisco

Recent Incorporations

RELIANCE PAPER COMPANY, Marinette, Wisconsin. Capital, $25,000—500 shares par $50. Incorporators, Stanley E. Eastman, Harry R. Goldman and Harry E. Munson.

MOBILE PAPER MILLS, Mobile, Alabama, to manufacture paper and by-products thereof. Authorized capital, $200,000, of which $152,000 is paid in. Joseph M. Walsh, E. D. Angell and T. L. Smith are among the incorporators.

STANDARD CARD & PAPER COMPANY, Manhattan, New York. Capital, $75,000. Incorporators, T. C. and C. Y. Scarborough, R. D. Boyle. Attorney J. A. Morison, 41 Park Row.

P. D. WYNNE COMPANY, Manhattan, New York, make paper. Capital, $20,000. Incorporators, I. S. Wynne, E. C. Richards, M. J. Ramirez. Attorneys, Corner, Bell, Russell & McNulty, 375 Pearl street, Brooklyn.

FLEMING PAPER CORPORATION, Manhattan, New York. Capital, $11,000. Incorporators, P. B. and C. C. Fleming, J. B. Baylis. Attorney, M. W. Beyers, 41 Park Row.

PAPER PACKAGE CORPORATION, Brooklyn, New York, specialties. Capital, $10,000. Incorporators, S. Hoffman, S. Levy, B. Horowitz, 2,916 West 36th street, Brooklyn.

POQUONOCK PAPER COMPANY of Windsor; to make other wood fiber products; capital, $300,000; incorporators, William S. Kenyon, Donald C. McCarthy and Vincent W. Dennis, all of Hartford, Conn.

CAPITAL INCREASES

HUDSON FALLS PAPER COMPANY, Hudson Falls, New York, $10,000 to $50,000.

ALGONQUIN PAPER CORPORATION, Ogdensburg, $5,000 shares preferred stock, $100 each, to $6,500 preferred, $100 each; $15,000 common, same as heretofore.

Bankruptcy Petition Against M. E. Connors

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., March 4, 1924.—An involuntary petition in bankruptcy has been filed in United States district court at Milwaukee against M. C. Connors, president of the Ashland Paper Company, Ashland, Wis. Bankruptcy of the paper company also is pending in Federal court.

Mr. Connors' liabilities are listed as $190,708.18 of which $54,625.92 are secured claims, and his assets amount to $152,200 of which $19,000 is in real estate, $38,000 accounts receivable and $90,000 stocks and bonds. Only $200 exemption is listed.

The Ashland Paper Company was acquired a few years ago from the Tuttle Press of Appleton which had purchased the mill to supply it with raw material for its conversion plant here. It was said when the plant was sold that the Tuttle Press could buy its material cheaper than it could manufacture it at Ashland and transport it to Appleton. The plant has a capacity of about 25,000 pounds of tissue, crepe and napkin paper.

Some Trades of Paper Improved

"Forecasts of an improvement in business early in 1924, as compared with the late fall and early winter months have been made good," says the monthly market review of the Paper and Pulp Industry, the monthly bulletin of the American Paper and Pulp Association to its members.

"The year was hardly begun before there was a notable influx of orders in nearly every grade, and the business increased steadily throughout January. There was then a slight falling off in new orders, the immediate needs of the consumers having been met, such increased demand is still being felt. Some grades of paper are stronger now than at any time for months.

"Even in the grades which were slowest to feel the increased demand there has been evidence of a healthy improvement in conditions. In book, for instance, while the volume of orders has not been remarkable, the number of small orders is reported by many companies as being the largest on record, though all for immediate delivery.

"Fine papers have been in good demand, and as a rule the demand is heaviest for the better grades. Kraft wrapping has been showing renewed strength, even on the sea board where the foreign competition has been most seriously felt.

"It is perhaps significant that the increased demand is largely coming to the mills from the interior markets, rather than from the coast points where many importers have evidently been seeking every possible means of evading the customs acts by improper classification of imports.

"The general improvement will doubtless be reflected to some extent in the January production figures of the mills. The improvement however, will probably be shown to a greater extent in the production figures for February, when many of the orders received during January were being handled in the mills."

Forestry Men See President

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., March 5, 1924.—A conference was held the latter part of last week with President Coolidge by representatives of a number of associations who are interested in the Forestry situation.

They expressed their deep interest in the McNary Forestry bill and asked the President if he would do anything that he could to facilitate the passage of the bill at the present session of Congress.

Those attending the conference included: R. S. Kellogg, Chairman of the National Forestry Program Committee; Elliot Godwin, Vice-president of the Chamber of Commerce of the United States; Philip Ayres, Secretary of the New Hampshire Society for the Protection of Forests; Gray Silver, American Farm Bureau Federation, and Wilson Compton, Secretary of the National Lumber Manufacturers Association.

Paper Manufacturers See President

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., March 4, 1924.—A. G. Paine, of the New York and Pennsylvania Paper Company; Fred Hume, secretary of the National Publishers Association; F. J. Sensenbrenner, of the Kimberly-Clark Company, Neenah, Wis.; and several other paper manufacturers and publishers conferred yesterday with President Coolidge and Secretary of Commerce Hoover.

The greatest amount of secrecy was maintained in connection with the conferences but it is understood on good authority that the Administration was informed of the Canadian pulpwood embargo situation. While neither the President or Secretary Hoover would discuss the matter it is generally thought here that the delegation asked the Administration to bring some pressure to bear on the Canadian government in connection with the proposed embargo.

Geo. A. Whiting Married to Mrs. May B. Babcock

[FROM OUR REGULAR CORRESPONDENT]

MENASHA, Wis., March 4, 1924.—F. B. Whiting, vice-president of the George A. Whiting Paper Company, Menasha, and the Whiting-Plaver Paper Company, Stevens Point, Wis., announces the marriage of his father, George A. Whiting, president of the George A. Whiting Paper Company and the Whiting-Plaver Paper Company, to Mrs. May R. Babcock at Chicago, Ill., on February 25, 1924. The ceremony was solemnized at the Fourth Presbyterian church by Rev. John Timothy Stone. Mr. and Mrs. Whiting accompanied by Mrs. F. B. Whiting will motor through Florida and will visit with Mr. and Mrs. F. B. Whiting's son, George, who is at Lake Placid school near Miami, Fla.

Southern Paper Industry—

The South offers the greatest opportunity to the future growth of the American paper industry.

Southern woods will reproduce in one-fourth of the time required by Northern woods.

For the manufacturing of kraft, cardboard, fibre board, magazine and book paper, Southern woods have proven entirely practical and satisfactory.

Mills are operated successfully at various points in the South. Their success proves the case.

Quickly growing timber, year round timber operations, cheap and reliable power, low fuel costs, abundance of cheap labor and short hauls to markets, are attractive inducements.

Specific data on the Southern pulp and paper opportunities will be gladly furnished on request.

Development Department
Seaboard Air Line Railway,
Oglethorpe Building,
Savannah, Ga.

Chas. A. McKeand,
General Industrial Agent.

Clement S. Ucker,
Director of Development.

THE SEABOARD— *Through the Heart of the South*

Editorial

Vol. LXXVIII New York, March 6, 1924 No. 10

HENRY J. BERGER, Editor

COMING EVENTS

American Paper and Pulp Association, Convention and Meeting of Affiliated Associations, Waldorf-Astoria, April 7-11.

National Paper Trade Association, Convention, Waldorf-Astoria, April 8-10.

Technical Association of the Pulp and Paper Industry, Convention, Waldorf-Astoria, April 7-11.

Salesmen's Association of the Paper Industry, Convention, Waldorf-Astoria, April 7-10.

Paper Industries Exposition, Grand Central Palace, April 7-12.

TRAINING PAPER WORKERS

On more than one occasion the PAPER TRADE JOURNAL has referred to the exceptional progress being made by Mr. R. W. Jenkins of the Department of Vocational and Commercial Education of the Ohio State University at Columbus, Ohio, in his work among the Ohio paper mills. Just now his course in business economics for paper mill foremen is creating considerable interest. The character of this work may be inferred from the sample sheet, reprinted herewith, from the course now being conducted at the plant of the Champion Coated Paper Company at Hamilton, Ohio. This course has been adapted to the paper industry from "Roberts' Economics for Executives," and the sample lesson which is Number Seven is as follows:

Capital is the SAVINGS of the people and it represents "produced goods devoted to further production" (tools, houses, etc).

The ultimate purpose of capital when used as a factor in production is to supply the needs and wants of the population. Furthermore, there is literally no limit to the amount of business that may be done, because there is no limit to human wants.

Only by investment in productive industry for the masses of people, can SAVINGS accomplish benefit. And, labor must be employed and paid wages in order that there shall be market for production.

Almost all the SAVINGS of all the people, almost all the wealth of the world is used to supply the wants of the masses. A man doesn't need to own a paper mill to get benefit from it. We all benefit from the use of the steam engine.

Over production usually means unbalanced production. If production is in balance, the more that every group can produce the more of the comforts of life there will be for all.

The wants of modern society with all its complexity and all its modern advantages could not be met without large scale production. Some nations are unable to accumulate capital to produce enough to supply ordinary human wants.

1. What constitutes production?
   Is the farmer the only real producer? Why?
   What really entitles a man to be called a producer?
2. The activities of production include, FORM, PLACE and TIME utility.
   Which of these apply to the farmer, paper maker, doctor and the soldier?
3. Our round-about method of production has enabled the paper maker, the last one hundred years, to greatly increase his output. Use paper making as an illustration indicating our indirect, willingness to wait, method of production.
4. All privately owned industrial establishments are part of the equipment by which the wants of society are supplied. All paper mills are rendering the same essential service as though they were owned by the state. If they were owned by the state they could serve the common good only by being managed in the same way. Do you agree with this statement?

Suggestions solicited.

The fact that the men have been advanced to a point where they can discuss the subject as outlined in the sample sheet speaks well for the work being accomplished. Undoubtedly as an understanding of economic questions by the working man is very desirable and can best be secured by such conferences of foremen and working men as Mr. Jenkins is carrying on.

In the foremen training work being done by Mr. Jenkins, seventy foremen are enrolled in four paper mills. This is an inspiring record that should be emulated in other paper and pulp mill sections of the country.

HEAVY EXPORTS OF SWEDISH PULP

There was a remarkably large foreign sale of Swedish wood pulp during December amounting to 194,605 metric tons as compared with 119,620 tons in November, according to a report just received by the Paper Division of the Department of Commerce at Washington from American Consul Leonard at Stockholm.

Preliminary figures indicate, the report states, that the total exports of all kinds of Swedish wood pulp in 1923 were only slightly below those for the previous year, being 1,044,216 tons (including wet pulp) as compared with 1,170,435 tons in 1922.

No official statistics are as yet available on the production of wood pulp in 1923, but from reliable sources it is estimated that 66,000 tons of bleached and 680,000 tons of unbleached sulphite, 235,000 tons of sulphate and 300,000 tons of mechanical pulp were produced last year. As the estimated annual capacity of the Swedish sulphite mills is 680,000 metric tons and the sulphate mills is 285,000 metric tons, it will be noted that the estimated output in 1923 is close to 85 per cent capacity.

Exports to the United States last year, based on the declared exports certified at the consular offices, were valued at $19,724,463 distributed among the different classes as follows: sulphite, $12,494,243; sulphate, $4,684,389; kraft pulp, $1,184,497; soda pulp, $854,392; and mechanical ground wood, $506,942.

EMPLOYMENT IN PAPER MILLS

Included in figures which have just been made public by the Bureau of Statistics Department of Labor, showing employment in December and January and also employment in January, 1923, as compared with the same months this year, replies received from 176 paper and pulp mills showed their employment in December to have been 51,543, decreasing slightly in January to 50,872, a decrease of 1.3. The pay-rolls in these same establishments also decreased from $1,341,206 in December to $1,321,219 in January, a decrease of 1.5.

The Bureau also received replies from 144 paper box factories showing their employment in December to have been 15,870, decreas-

ing slightly in January to 15,229, a decrease of 4 per cent. The payrolls in these same establishments also decreased from $332,545 to $313,299 a decrease of 5.8.

Replies were also received by the Bureau from 151 paper and pulp mills comparing the employment in January of this year as compared with the same month of last year. These mills reported employment of 42,805 in January of last year, decreasing slightly in the same month of this year to 42,504, a decrease of .7 per cent. The payrolls of these mills on the other hand increased from $1,067,241 in January of last year to $1,117,034 in January of this year, an increase of 4.7 per cent.

The Bureau also received replies from 113 paper box factories who gave their employment in January of last year at 13,043 increasing in the same month of this year to 13,288, an increase of 1.9 per cent. The payrolls in these factories also increased from $257,550 in January of last year to $280,711 in the same month of this year, an increase of 9 per cent.

January Pulp and Paper Production Statistics

Production of paper by identical mills reporting to the American Paper and Pulp Association and cooperating organizations showed an increase of 17 per cent in January from the December production, according to the monthly statistical summary of the paper and pulp industry.

The tonnage summary is prepared by the American Paper and Pulp Association with the cooperation of the Binders Board Manufacturers Association, News Print Service Bureau, Tissue Paper Manufacturers Association, Wrapping Paper Manufacturers Service Bureau and Writing Paper Manufacturers Association. The figures for January follow:

Grade	Number of Mills	Production Net Tons	Shipments Net Tons	Stocks on Hand, End of Month Net Tons
News print	67	128,772	123,253	28,417
Book*	35	49,972	49,473	24,855
Paperboard	112	111,213	109,676	34,736
Wrapping	90	51,522	48,817	60,917
Bag	26	9,747	10,259	6,191
Fine	84	25,100	25,482	40,067
Tissue	44	9,567	9,668	7,240
Hanging	10	4,113	4,426	1,955
Felts	17	13,048	12,479	2,633
Other grades	59	16,561	16,245	17,620
Total—All grades	...	419,615	409,778	224,631

*Preliminary.

The statistical table below gives the number of mills reporting to the American Paper and Pulp Association and the U. S. Pulp Producers Association, and the data as to production of the various grades of pulp in January.

Grade	Number of Mills	Production Net Tons	Shipments Net Tons	Stocks on Hand, End of Month Net Tons
Ground wood pulp	99	116,677	91,615	81,987
Sulphite, news grade	39	48,922	45,717	17,739
Sulphite, bleached	19	20,610	17,917	4,022
Sulphite, easy bleaching	7	6,086	4,542	1,222
Sulphite, mitscherlich	6	6,139	6,132	1,050
Sulphate pulp	12	14,502	12,509	8,082
Soda pulp	11	14,001	10,683	2,605
Other than wood pulp	2	136	.....	243
Total—All grades	...	227,073	189,115	116,950

Continental Mill at Rumford Busy

[FROM OUR REGULAR CORRESPONDENT]

RUMFORD, Me., March 4, 1924.—Business at the plant of the Continental Paper and Bag Mills Corporation recently purchased from the International Paper Co. is excellent. The plant is working to capacity, with a good outlook for big business to continue.

It is reported that the old envelope mill may be operated in the near future. This would mean an increase of at least 300 mill workers in this town.

Waste Material Dealers to Meet

The eleventh annual meeting of the National Association of Waste Material Dealers, Inc., is to be held at the Hotel Astor, New York, on Wednesday, March 19, at 10:30 a.m. Among other matters of importance to come up at that time will be the election of a president and eighteen directors. Harry R. De Groat of Philadelphia, has been re-nominated for another year as president and the board of directors has been increased from 25 to 31, including the president.

All the various Divisions will hold meetings for the election of Chairmen for the ensuing year and to transact any other business of importance which requires action.

The Association's fiscal year ends on March 24, it being the anniversary date on which it was formed, in 1913.

The past year has been one of the most successful in the history of the Association. The number of new members elected whose dues started with the beginning of the present fiscal year has been 128 and there are 20 applications pending at the present time. No such increase in membership has ever taken place before and the reason for same is undoubtedly due to the fact that the Association has conclusively proved to the trade that it is rendering a service which makes membership almost indispensable.

During the year a Southern Division has been formed with over 30 members and the membership abroad has also been steadily increasing.

One of the most significant accomplishments during the past year has been the drawing in to the association of practically every concern holding membership in the Association of American Wood Pulp Importers, which organization includes practically all the leading wood pulp importers in the country.

The eleventh annual banquet of the Association will be held at the Hotel Astor, New York, on the evening of Wednesday, March 19 and reservations already received indicate that it is going to be difficult to accommodate all who desire to attend. There will be the usual very fine dinner with plenty of music, a high grade quartette and among the speakers will be Hon. James E. Watson, United States Senator from Indiana and Capt. Irving O'Hay, U. S. Army retired. Senator Watson is one of the leaders in the Senate and a very able speaker, while Capt. O'Hay is said to have the humor of Mark Twain, the philosophy of Mr. Dooley and the wit of George Ade.

Program for Woodlands Convention

The detailed program for the Woodlands Section convention, April 9 of convention week of the American Paper and Pulp and affiliated associations is rapidly approaching completion. Several particularly interesting discussions are scheduled for discussion.

"The whole program this year will be of intense practical interest to the paper manufacturers," said Secretary O. M. Porter in discussing the convention plans. "Live-wire discussions will be held on forest fire and forest management questions, while the Forest Products Laboratory specialists will give up-to-the-minute information on the progress of their pulpwood decay investigations."

The tentative program for the Section convention follows:

"Forest Organization for Fire Control," Maj. Kelley, U. S. Forest Service.

"Pulp Wood Supplies—Can a Paper Company Afford to Spend Money on Its Timber Lands to Secure Increased Production?" H. B. Shepard.

"The Northereastern Forest Experiment Station," Samuel T. Dana, Director.

"Pulp Wood Decay," Speakers from the U. S. Forest Products Laboratory and John E. Alexander, Nekoosa-Edwards Paper Company.

"Elimination of Waste and the Reduction of Logging Operation Costs," E. S. Byrant.

"Commercial Reforestation," discussion led by Prof. S. N. Spring, Cornell University.

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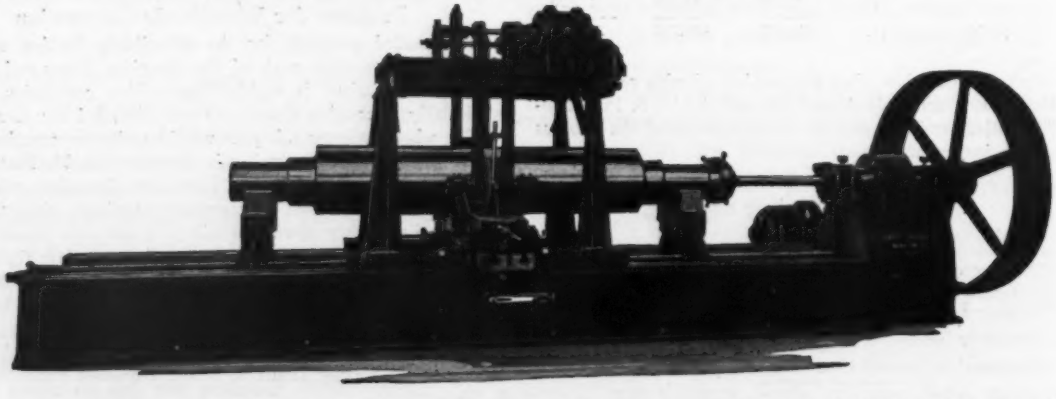

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AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

A LIQUID SULPHUR DIOXIDE PROCESS FOR SULPHITE PULP—II[1]—ITS APPLICATION TO LONGLEAF PINE

By Ralph H. McKee and Donald E. Cable (Department of Chemical Engineering, Columbia University, New York)

In the work on which we previously reported[1] a study was made on the removal of resinous matter from scrub pine (*Pinus virginiana*) by means of the solvent, liquid sulphur dioxide. However, as this species of wood was found to be relatively lean in resinous matter, it was decided that a species of wood which is relatively rich in its content of resinous matter would give data of a more conclusive nature relative to the advantages or merits of a process of this kind, requiring a preliminary treatment of the raw chips with liquid sulphur dioxide. With this in mind chips were cut for us on a commercial chipper by the York Haven Paper Co., using a bolt of longleaf pine (*Pinus palustris*) ten inches in diameter and about three feet in length cut by an officer of the U. S. Forest Service in the Florida National Forest near Valparaiso, Florida.

This segment of the original tree came from that part of the tree which was about thirteen feet above the ground level. This tree was felled on April 28, 1923. The chips from it reached Columbia University on May 22nd. They were allowed to air dry in thin layers until the following September. After screening out all fine material passing through a 5/8 in. mesh screen and picking out by hand all pieces of length exceeding 1 5/8 in. (with grain) the selected chips, designated by the letter F, were placed in a closed steel container after being thoroughly mixed.

By means of hand separation a representative lot of chips F were divided into six groups depending on lengths of the individual chips with the grain. Table 1 shows the size classification of these chips.

Table 1—Character of chips F with respect to size.

Length of chips with grain	Weight (grams)	Per cent of total weight
1/2 in. or under	11.0	6.9
1/2 in. to 5/8 in.	21.0	13.2
5/8 in. to 3/4 in.	18.0	11.3
3/4 in. to 7/8 in.	39.0	24.5
7/8 in. to 1 in.	42.2	26.5
1 in. to 1 1/8 in.	28.0	17.6
Total.....	159.2	100.0

Thus it is seen that over two-thirds of these chips by weight range in size from 3/4 to 1 1/8 in.

Extraction with Various Organic Solvents

In order to determine the relative solvent power of liquid sulphur dioxide for removing the resinous matter from wood chips as compared with a number of ordinary organic solvents a series of soaking or leaching tests were made. In these tests a measured quantity of solvent was added to a weighed portion of the chips. The mixture was placed in a closed container. At definite intervals of time the container was shaken and an aliquot portion of the resulting solution drawn off, transferred to a weighed beaker and the residue which it contained weighed again by difference after evaporating off all the solvent and volatile matter. By calculation it was then possible to determine the weight of resinous matter which had become dissolved by the whole measured quantity of solvent in the system. A series of such observations was made on each solvent.

Thus working with ether (ethyl) as the solvent the following data was obtained:

Jan. 3, 1924.

Extraction FE (19°–22°C.)
Weight of raw chips taken, 60.0 g. = 54.5g. (oven dry basis) (chips were known to contain 9.0 per cent moisture and volatile matter).
Amount of ether added to chips, 225cc.
To keep the chips completely immersed in the solvent they were weighted down with a layer of glass marbles. For each sample 5.00cc. of solution was removed. After each removal an equal volume of fresh solvent was added to the flask.
10:57 A. M. Started (solvent added to chips).

Observed time	Elapsed interval from start	Temperature of room near flask °C	Sample No.	Weight residue obtained (g.)
11:14 a. m.....	:17	22.0	1	0.0427
11:42 a. m.....	:45	22.2	2	0.0665
12:27 p. m.....	1:30	22.0	3	0.0825
1:57 p. m.....	3:00	22.0	4	0.0968
5:00 p. m.....	6:03	21.5	5	0.1300
10:50 p. m.....	11:53	18.5	6	0.1300
11:17 a. m. (1/4).....	24:20	19.0	7	0.1468
11:37 a. m. (1/4).....	48:40	20.0	8	0.1593
3:00 p. m. (1/31).....	28 days	20.0	9	0.1666

CALCULATED RESULTS

Resin yields based on oven-dry weight of chips taken.

Time	Weight residue (g.)	Weight residue in solution	Cumulative weight removed in samples	Total residue dissolved (g.)	Yield based on weight of chips (per cent)
:17	0.0427	1.92	....	1.92	3.52
:45	0.0665	2.99	0.0427	3.03	5.55
1:30	0.0825	3.71	.1092	3.82	6.97
3:00	0.0968	4.35	.1917	4.54	8.31
6:03	0.1120	5.04	.2885	5.33	9.75
11:53	0.1300	5.85	.4005	6.25	11.41
24:20	0.1468	6.60	.5305	7.13	13.05
48:40	0.1593	7.16	.6773	7.84	14.39
28 days	0.1666	7.49	.8366	8.33	15.3

These results are represented graphically as Curve IV in Fig. 1. It is of special interest to note that this data when plotted on semi-

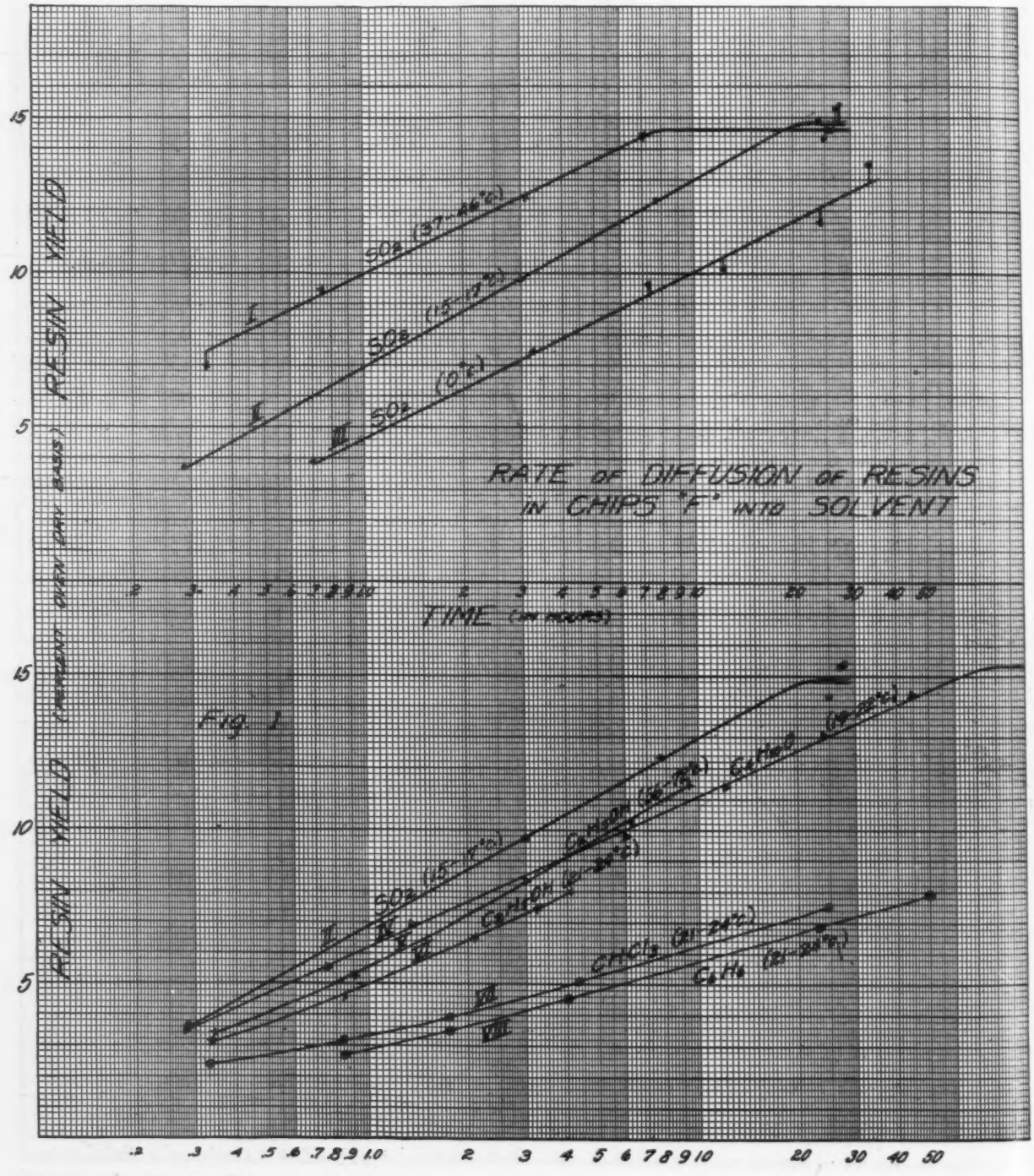
[1] Paper Trade Journal, Oct. 18, 1923, Vol. 77, No. 16, pp. 101-4.

logarithmic paper yields practically a straight line, showing that the rate of solution in this case is governed by the law of mass action[2]. It will be noted in referring to the corresponding curves obtained in using a number of other solvents upon chips F that they all approximate very closely to straight lines. These other curves were obtained in practically the same manner as Curve IV was obtained.

In the case of using ethyl alcohol (95%) as the solvent two sets of data were obtained. One test was made at room temperature (Curve VI) and the other was made through a range in temperature varying between 56° and 72°C. (Curve V), using a reflux condenser to prevent loss of solvent. As would naturally be expected the higher temperature gave an appreciably higher rate of solution.

Leaching tests using chloroform (Curve VII) and benzene (Curve VIII) were also made at room temperature (21-24°C.).

[2] See Liddel's "Handbook of Chem. Engineering," Vol. 1, p. 342.



Extraction with Liquid Sulphur Dioxide

In order to determine the rate at which liquid sulphur dioxide dissolves resinous matter from chips F apparatus of a different character must be employed from that used with the above organic solvents because of the excessive pressure developed at temperatures above—10°C. (the boiling point of liquid sulphur dioxide at atmospheric pressure). For making these sulphur dioxide leaching tests the pressure extraction cell shown[1] in our previous article was used, a cut of which is here reproduced as Fig. 2. The method

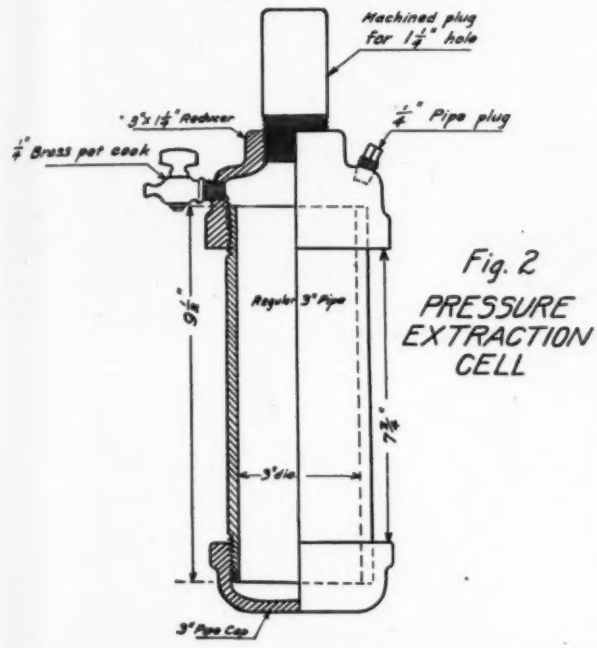


Fig. 2
PRESSURE EXTRACTION CELL

of manipulation followed in making these tests was the same as described in the above article with a few minor changes.

One of these changes was to fill the space between the top of chips and the top of cell with a number of glass marbles (⅝ in. diam.) instead of covering the chips with cotton. Whenever an aliquot sample of the liquir sulphur dioxide solution was to be removed from the cell the cell was first thoroughly shaken, then after placing the cell in a horizontal position with the pet cock pointed vertically downward this cock was cautiously opened a slight amount. The stream of sulphur dioxide solution which then issued from the spout of this pet cock was collected in a small beaker (30 cc.). After about 10 cc. of it had accumulated in the beaker a 5 cc. measure made from a small test tube was quickly set in the partly filled beaker while the liquid sulphur dioxide was still being ejected through the pet cock. When the 5 cc. measure tube became filled the pet cock was immediately closed and the 5 cc. quantity of solution then poured into a tared beaker before an appreciable amount of the solvent had time to evaporate.

In making this transfer the first 10 cc. of sólution might have become appreciably and undeterminably concentrated by the flow of heat from the metal of the pet cock which would result in more or less spontaneous evaporation of the solution before reaching the beaker. However, after that amount of solution has passed into the beaker it is safe to assume that the flow of heat from metal to liquid is negligible and that the only evaporating effect then produced is that due to the heat present in the liquid itself before its expansion from the pressure corresponding to the temperature to which the cell was cooled just prior to withdrawing sample (usually 0°C.) and atmospheric pressure. In other words the liquid in passing through the pet cock dropped in temperature from 0°C. to —10°C. almost instantaneously. This loss in sensible heat is converted into heat of vaporization with a simultaneous evaporation of a certain definite fraction of its original weight. This per cent loss in weight of the solution can easily be calculated. Thus a 5.1 cc. amount of solution at a temperature of 0°C. before leaving the cell would contract to 5.0 cc. in passing through the pet cock. After this sample had been removed and pet cock again closed the cell was reimmersed in the constant temperature water bath.

With liquid sulphur dioxide as the solvent under consideration three series of leaching tests were made. One was made within the range of temperature between 37° and 46°C. (see Curve I, Fig. I). The second was made within the range between 15°C. and 17°C. (see Curve II) and the last was made at the temperature of ice water or 0°C. (see Curve III). To illustrate the manner in which this data was obtained and recorded a complete set of data for the first test (Curve I) will be given here.

Nov. 21, 1923.

Extraction FS9 (37–46°C.)

Weight of chips (air dried) in cell III	230.0 g.
Weight of marbles	434.0 g.
Liquid sulphur dioxide added	1,050 cc.
10:02 a. m.—Valve closed.	
Weight cell full	9,627 g.
Weight cell III empty with plugs	7,625 g.
Weight, sulphur dioxide after closing cell (1,338 g. = 984 cc.)	1,338 g.
Sulphur dioxide lost by evaporation and cooling of cell	66 cc.
10:08 a. m.—Cell placed in bath.	
10:13 a. m.—40° C.	
10:28–10:48 a. m.—Cell cooled in ice water.	
10:48 a. m.—Sample No. 1 in beaker L	18 cc. solution off.
Weight residue, 0.0733 gm.	
10:54 a. m.—Cell back in water bath.	
11:18 a. m.—42.8° C.	
11:19–11:45—Cell in ice water.	
11:45 a. m.—Sample No. 2 in beaker U	8 cc. solution off.
Weight residue, 0.1009.	
11:46 a. m.—Cell back in water bath.	
2:08–2:35 p. m.—Cell in ice water.	
2:35 p. m.—Sample No. 3 in beaker U	13 cc. solution off.
Weight residue, 0.1338.	
6:20 p. m.—46° C.	
2:37–6:37 p. m.—Cell in warm water.	
6:37–7:22 p. m.—Cell in ice water.	
7:22 p. m.—Sample No. 4 in beaker R	17 cc. solution off.
Weight residue, 0.1564.	
7:22 p. m.—Cell in warm water.	
9:20 p. m.—Weight now 9,561 g.	
9:30 a. m. (11/22)—37° C.	
10:00 a. m.—Weight now 9,551 g.	
2:37 p. m.—Sample No. 5 in beaker G	20 cc. solution off.
Amount of solution drawn off at end of run = 375 cc.	

Calculated Results

Weight of chips taken	230.0 g.
Equivalent to bone dry weight	204.7 g.

Extraction started 10:08 a. m., 11/21/23.
Cooled each time to 0° C. before drawing sample.
Sample taken represents 5.10 cc. before leaving cell.

Sample No.	Temp. °C	Time drawn	Total time at 37–46°	Total amount drawn (cc.)	Vol. of SO_2 before removing sample	Wt. res. in sample (g.)	Total residue dissolved (g.)	Resin yield per cent (dry chips)
1	40.0	10:28	:20	18	983	0.0733	14.2	6.94
2	42.8	11:19	:45	8	965	0.1009	19.29	9.41
3	...	2:08	3:07	13	957	0.1338	25.25	12.44
4	46.0	6:37	7:07	17	944	0.1564	29.46	14.4
5	37.0	2:37	26:22	20	927	0.1569	29.82	14.6

From a study of the three curves obtained with liquid sulphur dioxide it is apparent that temperature has a very important effect on the rate of extraction. It also will be seen that the ultimate or maximum amount of resinous matter which is dissolved by the liquid, expressed as a percentage of the weight of chips used (oven dry basis) is 14.6 per cent. This represents a limiting amount, which is taken up by the solvent whether one works at 40°C. or at 15°C. However, as would be expected the time required for the sulphur dioxide to take up this quantity of resins when working at 15 to 17°C. is over twice as long as that required when working at 37 to 46°C. This maximum would undoubtedly have been reached in working at 0°C. if observations had been made over a sufficiently long period of time, but obviously Curve III does not reach that far.

[1] *Loc. cit.*, p. 102.

In the third place these curves enable one to predict more or less accurately what quantity of resins will be dissolved when working at one of these temperatures for a definite length of time and conversely it affords a means for predicting the length of time necessary for bringing a given percentage of the total resins into solution. Now even should all the resinous matter be brought into solution as would be the case after eight hours at 37 to 46°C. this does not mean that all this resinous matter could be removed from the chips by draining off the solvent. It means that this resinous matter is evenly distributed throughout the solution; at least for purposes of experimentation this can be assumed. Actually the solution which is retained in the capillary pores and cellular chambers is as concentrated or more concentrated than the solution which surrounds the chips. It is this solution within the chips which is tenaciously retained by them after the rest of the solution has been drained off. Consequently fresh treatments with fresh solvent or solvent weaker in dissolved resinous matter than the cellular solution is necessary to accomplish a reduction in the amount of resins retained in that portion of the solution which is left distributed throughout the chips after draining off the last batch of wash liquor.

Comparison of the Solvent Actions of Liquid Sulphur Dioxide and Several Organic Liquids

Comparing the solvent rate of liquid sulphur dioxide at 15 to 17°C. with the solvent rates of organic solvents at room temperature (18 to 24°C.) it is seen that the former is decidedly the most rapid. The organic solvent among those studied which approached most closely to the rate of this solvent was ether. From a comparison of Curves II and IV one finds that for bringing 89 per cent of the total resinous matter in the chips (or 13 per cent of dry weight of chips in the form of resins) into solution about ten hours is required with liquid sulphur dioxide at 15 to 17°C., while with ether at 18 to 22°C. twenty-four hours is required

It would be academically interesting to know what position would be assumed by the gasoline such as is used almost exclusively at the present time by our American steam solvent plants. From information given[4] one of us would be inclined to think that it would work less rapidly than benzol (coal tar benzene). Furthermore it would be instructive to know what position the gasoline curve would assume at the temperature ordinarily maintained during extraction in the Yaryan type plants which probably is somewhere in the vicinity of 100°C. It is our belief that such a curve would not be far from Curve I for sulphur dioxide at 37 to 46°C.

Comparison of the Liquid Sulphur Dioxide Extraction Process with the Present Gasoline Extraction Process

Assuming that the rates of these two solvents at the stated temperatures were approximately equal, what are the outstanding advantages of the sulphur dioxide over the gasoline? In the first place the quantity of steam consumed in heating the solvent up to the working temperature would be decidedly less with sulphur dioxide as solvent. That is the amount of heat required to raise one gallon of liquid sulphur dioxide[5] from 70°F. to 113°F. (45°C.) is 276B.T.U., whereas the amount of heat required to raise one gallon of gasoline (sp. gr. 0.69) from 70°F. to 212°F. (100°C.) is 408 b.t.u.

Second: The amount of heat consumed in maintaining these respective temperatures, assuming an external temperature of 70°F. and equal rates of heat transfer through the walls and insulation of the extraction chambers would be in the proportion of approximately one to three in favor of sulphur dioxide.

Third: The color of the chips after extraction at 45°C. with sulphur dioxide is not appreciably darker than the same chips before extraction. With the steam solvent process of extraction according to Hawley[6] "some of the wood from commercial extraction plants which has been examined by pulp men has been condemned, and properly so, on account of discoloration or even incipient charring by the superheated steam used in the solvent recovery operation." Where the residual chips are used for fuel such a darkening effect would not be objectionable, but where one proposes using the extracted chips, as we do, for making a bleached or easy bleaching pulp this darkening effect would be highly objectionable.

Fourth: Extraction at a temperature of 45°C. will undoubtedly yield a lighter colored rosin than one would get from chips that had been darkened by contact with superheated steam followed by an extraction for six to ten hours at 100°C.

Fifth: Gasoline used as a solvent in an extraction plant introduces a big fire hazard. A number of other common organic solvents such as benzol, alcohol and ethyl ether are equally objectionable for this reason. Liquid sulphur dioxide is fortunately free from this bad feature.

Sixth: The loss of solvent in the process of extraction with liquid sulphur dioxide should be almost negligible. That portion of the solvent which is retained mechanically in the pores of the chips after draining off the liquor from the last treatment will serve towards building up the strength of the sulphite cooking liquor in its content of free sulphur dioxide.

Of course there is more sulphur dioxide held by these chips than could be dissolved by the sulphite acid at 20°C. (and atmospheric pressure). It was estimated that if all this adhering solvent could be dissolved by a digester full of water we would obtain an acid of 32.4 per cent free SO_2[4]. But it has been shown by Edwardes[7] that in making up a cooking acid using liquid sulphur dioxide the maximum obtainable strength would be 12.0 per cent free or a total of 13.2 per cent with a 1.2 per cent combined. He also states, "In comparison with this, using a 17 per cent gas (from sulphur burners) at 16°C. and atmospheric pressure the limit of solubility was reached when the mill test showed 4.0 per cent total, 2.8 per cent free, and 1.2 per cent combined.

Now the result of running the lime solution[8] into the digesters would be to vaporize all the liquid sulphur dioxide adhering to the chips as rapidly as the heat necessary for its vaporization would be supplied to the system by the introduction of steam. After the solution had become saturated with the gas at a certain temperature the residual sulphur dioxide vapor would be removed from the digester and by means of suitable equipment would be changed back again into the liquid state. The strength of the cooking acid in free SO_2 could be reduced from 12.0 per cent at 20°C. (760 mm. pressure) to any desired point by slowly raising the temperature of the cooking acid and leaving the blow off valve open until that temperature had been reached at which the concentration of free sulphur dioxide had fallen to the desired amount. Then the outlet valve would be closed and the cook carried on in the customary way. Consequently the only solvent lost by this method of extraction would be practically limited to that normally consumed in the sulphite cooking operation. So far as the extraction stage is concerned the loss of solvent would be very low.

With the steam solvent process the cost of the gasoline lost is estimated as being between 15[9] and 25[10] of the cost of producing the rosin and turpentine. Not only is there a considerable loss of solvent, but it is reported by a reliable authority that of the total time the chips are in an extractor (sixteen hours or more) the final steaming to recover the solvent requires about five hours[11]. Obviously this stage of the cycle of operation in the liquid sulphur dioxide process would be cut down to the time required for pumping lime solution into the digester and heating it up to the temperature at which the blow off valve is first closed or not much over 60°C.

[4] Through the courtesy of Mr. C. E. Kinney of the Hercules Powder Co.
[5] Wood Distillation, p. 136.
[6] McKee and Cable, *Loc. cit.*, p. 104, Table III.
[7] Paper, April 21, 1920.
[8] Best in the form of a weak cooking acid.
[9] Palmer and Boehmer, Jour. Ind. & Eng. Chem. 8, 695.
[10] French and Withrow, *Ibid.*, 6, 148.
[11] Greensfelder, Compressed Air Mag., 27, 199 (July, 1922).

(*To be continued*)

BABBITT METALS AND HOW TO BABBITT BEARINGS

By E. Andrews in *Power*

Babbitt metals for lining bearings offer a wide field for research. There are numerous brands submitted for use, for each of which special qualities are claimed. It cannot be expected that any one composition is at the same time the most suitable for use in bearings running with a light load and in others with a heavy load, with oil lubrication, and also for bearings like propeller-shaft bearings running in sea water without oil. Experience has also shown that a perfectly good babbit metal can be made practically worthless for bearings by allowing to to become too hot or by pouring when too hot or too cold, this being more applicable to a lead-base than to a tin-base alloy.

Where the service conditions are severe owing to great pressure, a babbitt metal having considerable compressive strength is necessary, regardless of what the speed may be, and this condition would require a relatively high percentage of tin. Where there is high speed and the pressure light or moderate, a babbitt metal having a fairly high percentage of lead can be used. In the same manner, with intermediate conditions between pressure and speed, correspondingly intermediate compositions can be selected. The following alloys have given complete satisfaction for the purposes mentioned:

BABBITT METAL COMPOSITIONS.

		Tin	Lead	Antimony	Copper
Used for shaftings and general heavy machinery	No. 1	80	..	10	10
	No. 2	75	..	15	10
	No. 3	70	10	10	10
Machine tools, millwork, bearings, etc..	No. 1	55	25	15	5
	No. 2	**50**	**27**	**19**	**4**
	No. 3	20	40	37	3
Light machinery		10	75	15	..
Railroad car axle bearings		15	70	15	..

A street railway company in a large city employs two classes of babbit for its general use—lead base and tin base babbitts. The uses, requirements as to composition and their tolerances are indicated in the following table:

Lead Base Babbitt—
Use—Motor axle bearings and new type journal brasses.

Chemical Composition	Required %	Tolerances Min. %	Tolerances Max. %
Lead	85	84	86
Antimony	10	9	11
Tin	5	4	6

Tin Base Babbitt—
Use—Armature bearings and old type journal brasses.

Chemical Composition	Required %	Tolerances Min. %	Tolerances Max. %
Tin	83½	82½	84½
Antimony	8½	7½	8½
Copper	8½	7½	8½

Another large manufacturing plant making its own babbitt for rolling mill work uses a lead base babbitt in which there is a small percentage of arsenic to increase the fluidity of the metal.

In the case of babbitt, as with other metals, the rate of cooling has an enormous effect on the crystallization and structure of the metals, and this shsould be borne in mind by the users.

The opinion prevails among some power engineers who make their own babbitt metal, that the quality is influenced by the order in which the various metals are melted and combined. The writer made some experiments on this point on a metal of the tin-copper-antimony type by making a metal of definite composition by three separate sets of steps, all different from the orthodox method. All resulted in metals which, when fused, possessed the same chemical proportions, and when the resulting metals were cooled under identical conditions as to the rates of cooling, the microscopic structures were in each case identical with those of the metal mixed in the orthodox manner. These results indicate that with babbitt metals, shop secrets or mysteries of mixing have only a fancy value with regard to convenience or even to accuracy of the final product; they are not essential to the quality of the bearing metal. In connection with the babbitting process the following method of procedure should meet all the requirements generally specified:

Cleaning Cast-Iron or Cast-Steel Shells (untinned)— First remove all the old babbitt metal from the shell. This can be done by heating the shell sufficiently to melt out the old lining. Remove all oil, dirt or other foreign matter by dipping the shell in a strong solution of caustic potash or by burning. If the latter method is used, continue the burning until all smoke ceases, showing that all oil and dirt have been burned off completely; then scrape the surface with an old file to remove scale and oxide. Cast-iron shells are rarely tinned.

Cleaning Bronze or Steel Shells (tinned)—Remove the old lining by heating, preferably in a pot of scrap babbitt, and take care not to heat it above 698 deg. F. Immediately the old lining is melted out, swab the tinned surface with zinc chloride, then dip into a pot of molten solder (50 per cent tin and 50 per cent lead), which should be kept at a temperature not less than 626 deg. and not more than 698 deg. If the shells are to be babbitted immediately, do not handle the tinned surface after removal from from the solder pot. If the shells are allowed to cool, thoroughly brush the tinned surfaces with clean waste. Zinc chloride may be had by placing strips of zinc in muriatic acid until the acid will eat no more zinc.

Tinning Bronge or Steel Shells—Cover the parts not to be tinned with a clay wash or a thin mixture of graphite and water. When dry swab the parts to be tinned with zinc chloride, then immerse the shell in a pot of molten solder, which should be kept at a temperature of about 680 deg. Leave the shell in the solder until it is hot enough for the solder to run off freely, leaving a thin coating. Remove the shell from the solder pot and rub the surface to be coated thoroughly with a swab saturated with zinc chloride, then dip in the molten solder again to eliminate all traces of zinc chloride. If any untinned places can be detected on the surface to be babbitted ,repeat the operation. Babbitt metal should not be used for tinning because it has a much higher melting point than solder, which makes it somewhat difficult to maintain a molten film on the surface to be tinned.

Preheating of Mandrels and Shells—For iron or steel shells (untinned) preheat the mandrel to a temperature of approximately 300 deg. F. and the shell to around 210 deg. If the shell is heated too hot, the length of time for cooling may be so prolonged that the heavier metals in the babbitt will have time to settle to the bottom of the bearing, in which case the metal in one end of the bearing will be somewhat soft and in the other end brittle; while if the shell is too cold, it will cool the babbitt too suddenly and cause it to shrink away from the shell. After each bearing is poured, swab the mandrel with a rag dampened with clay wash. This method leaves on the mandrel surface a thin layer of fine clay dust, which assists in producing smooth, clean bearings free from blowholes and other surface defects. Avoid the use of oil, as it tends to blister the babbitt.

For Bronze or Steel Shells (tinned)—Preheat the mandrel to about 210 deg. After each bearing is poured, it may be found necessary to cool the mandrel. This is done by dipping it in a clay wash, which leaves a layer of fine clay dust. When the mandrel is at the correct temperature, the water of the clay wash will evaporate quickly on the surface of the mandrel, but will not spatter vigorously. The bronze or steel shell is preheated in the tinning process and should be babbitted immediately after tinning, before losing the heat given to it by the tinning operation.

When melting the babbitt metal, the temperature should not be increased too rapidly. The molten metal should be stirred thoroughly at frequent intervals, and it is advisable to cover its surface

with powdered charcoal or graphite to prevent oxidation. Usually, babbitt metal should be kept at a temperature about 870 deg., the exact temperature depending on the composition.

The babbit should be poured from a ladle in a steady stream directly down the mandrel to avoid pocketing of air or splashing. Preferably, the ladle should have a rounded spout rather than one that is sharp or wide. A wide thin stream or an irregular one tends to produce blowholes or porous surfaces. The best results are invariably obtained by pouring the babbitt metal with the shell or bearing in a vertical position. Properly lined shells should ring sound when balanced on a suitable fixture and struck with a hammer; if they do not, the metal has not properly adhered to the shell and should be melted out.

The important points in babbitting a shell or bearing are briefly: Clean melting pot and ladles; clean shell or bearing; properly tinned surfaces; preheating mandrel and bearings correctly; maintaining the babbitt at a temperature of 860 to 880 deg.; pouring at the correct temperature; properly shaped ladles; cooling the bearing.

It is common practice for railroad passenger and freight-car bearings, after being lined with about 3/16 in. of babbitt metal, to be bored out in a machine and finished off by hand, but successful results have been recently made by casting a serviceable finished surface from the mold and bedding it directly onto the truck journal.

The Meaning of Paper Tests and Some Other Questions

We have a few questions on the testing of paper regarding which we would like to consult with some authorities on the subject. Here are the questions:

1. Why do some sulphite papers and papers of low rag content indicate just as high and sometimes higher physical tests, as papers of higher rag content?

2. Taking it for granted that two samples of paper have the same rag content of cotton rags, how are we to determine which sample contains the better quality of rag? Of course we can tell whether the fibers have been beaten too much, etc.

3. What kind of rag fibers make the best paper?

4. In a condensed manner I should like to know what the physical and chemical tests of paper mean and what is their relation.

5. Lastly, do you lay any stress on the folding test and what does it indicate besides how many times paper will fold?

We have our own opinions regarding these questions but in this case we find it necessary to consult with outside sources of information before we come to a definite conclusion.

Replies received will be handled in blank as usual.

THE SECRETARY.

Plans for Van Buren Mill

[FROM OUR REGULAR CORRESPONDENT.]

VAN BUREN, Me., March 4, 1924.—The Van Buren pulpmill of the International Paper Company has just been shut down for an indefinite period. This mill manufactures kraft pulp and up to the time of the sale of the Rumford mill of the International Paper Company to the Continental Paper and Bag Mills Corporation, the entire output of the local plant was shipped to Rumford.

When the Rumford mill changed hands, the new owners began buying pulp from other sources, mostly Canadian at a saving of about $15 a ton. Unable to compete with foreign markets, the International Paper Company ordered the mill shut down. The output of the local plant is 60 tons of pulp a day. About 300 men who received wages of $7,000 a week, have been laid off. The company may dismantle the Van Buren mill or put in paper machines to use up the pulp output. W. J. Murphy, the local manager, has gone to New York.

Ventilation of the Paper Machine Room

A valuable handbook has just been issued by J. O. Ross Engineering Corporation, the well known specialists in the use of air in industrial plants, for heating, ventilating and process purposes. The clearly written and well illustrated pamphlet of fifty pages may be the first of a series as it is entitled "Heating and Ventilation: the pulp and paper machine room."

J. O. Ross and his staff have had wide and successful experience in the equipment for dry lofts, the drying of coated and gummed paper, and air conditioning for printing plants and the manufacture of converted paper products as well as for the paper mills, and it is to be hoped that these important phases of paper manufacture will be similarly covered in future treatises as they appear.

Paper mill ventilation is treated historically and the developments in recent years are described in very interesting fashion. The necessity for air in the paper machine room and its functions are clearly analyzed as well as the causes of the difficulties still prevalent in many mills and the unintelligent attempts made to mitigate them are discussed. "The first great step towards efficient ventilation of the machine room was the realization that the volume of air supplied should depend almost entirely on the quantity of water evaporated in drying, and that all the air must be heated from the outside temperature to that at which it leaves the machine room." The design of the machine room, the construction and proper insulation of the walls and roof are discussed, and the value of hoods and vapor absorption systems. Several types of hoods are described and illustrated as well as a number of typical installations of vapor absorption systems, the operation of which is fully discussed and also their bearing on the cost of production.

The recovery of the heat by the condensation of the vapor in the exhaust ventilating air is dealt with in a chapter on the Briner economizer and the Ross water heater with a recapitulation of their economies based on existing installations.

This handbook on paper mill ventilation should be in the library of every paper mill engineer and executive as it brings into one pamphlet all that is at present known of the proper use of air in a paper mill.

Official Call for A. P. & P. A. Convention

The formal official call for the Forty-Seventh Annual Convention of the American Paper and Pulp Association has been sent out by Henry W. Stokes, president of the Association, and in his announcement Mr. Stokes says in part:

"There will be a business session the morning of the tenth, the President's luncheon at 1 P. M., and the banquet at night.

"All of the leading railroads of the country have granted special rate for our meetings and we hope that everyone attending our meetings will secure railroad certificate which when validated will allow reduced return fare.

"A strong and worth while program is being arranged both for the business meeting in the forenoon and for the banquet in the evening. A change is being made in the program for the banquet which, we think, will appeal to our members and their guests.

"Requests for reservations should be mailed not later than March 31. The tickets for the Annual Dinner will be $10 in addition to a registration fee of $5. The registration card will entitle holder to attend the meetings of the American Paper and Pulp Association and the Paper Industries Exposition at the Grand Central Palace.

"The usual 'zone system' in seating arrangements for the Banquet will be followed. Those in the third zone last year will be seated in the second zone this year; those who were in the second zone last year will find their places this year in the first zone; while those who occupied seats in the first zone last year will go back to the third zone this year."

DEFINITION OF PAPER TERMS

Supplementary Report of the Committee on Definitions

PREPARED BY F. A. CURTIS, FORMERLY CHIEF PAPER SECTION, BUREAU OF STANDARDS, AND C. J. WEST, CHAIRMAN, COMMITTEE ON DEFINITIONS, NATIONAL RESEARCH COUNCIL, WASHINGTON, D. C.

(*Concluded from last week*)

S

SUPERCALENDERED FINISH. A term applied to a finish of book and other papers, obtained by glazing the paper by passing it through a series of rolls of paper, cotton or chilled iron, with or without heat; rolls rest upon each other in the form of a stack and the bottom roll is driven; the iron rolls alternate with either cotton or paper rolls.

SUPERCALENDERED BOOK PAPER—6114. A kind of machine finished book paper that has been passed through a series of rolls of paper, cotton or chilled iron (called a supercalender), and given a high or gazed surface.

SUPERCALENDERED COVER PAPER—425. A kind of uncoated cover paper that has a high or glazed surface, obtained by having been passed through a supercalender stack.

SUPERFINES. *See* Superfine writings.

SUPERFINE WRITINGS—905. A high or superior grade of fine flat writings; usually with a high finish frequently modified to suit a diversity of uses and tastes.

SUPER FINISH. A term applied to a finish of an uncoated paper, which has been given a glazed surface. See Supercalendered.

SUPER GLAZED. A comparative term applied to an unusually highly glazed surface of paper.

SUPER ROYAL. A size of paper, 20 by 28 inches.

SUPPLEMENT. Sheets of book paper, added to the end of a printed book.

SURFACE COATED. A term applied to any paper to which a coating of any kind has been applied to the surface; distinguished from a coating applied by passing the sheet through a bath.

SURFACE SIZED. *See* Tub Sized.

SURGICAL DRESSINGS. A thin web of paper, made in layers, generally creped; sterilized and used by surgeons for its absorbent qualities. *See* Cellucotton.

SYPHON PAPER. A medium weight writing paper, of smooth surface; slit and reeled into rolls 5/8 inch wide and from 6 to 8 inches in diameter; used in connection with syphon recorders at telegraph cable terminals, for recording messages automatically in a special kind of marks.

T

TABLE CLOTHS, PAPER. White sulphite bond or other light weight strong papers, cut for use as covering for tables.

TABLE COVERS. *See* Table cloths.

TABLET BLOTTING. A sheet used on the front of tablets, between the cover and the writing paper; sometimes printed with black lines and included in a box of papeterie, to be placed beneath the sheet of writing paper to make it easier to write in a straight line.

TABLET BOARD. Chip or strawboard; used as a stiffener for the backs of tablets.

TABLET NEWS—515. A kind of news print, usually of rough surface suitable for pencil writing; used in cheap tablets.

TABLET PAPER. Book paper, sometimes containing mechanical pulp; sized for writing purposes; used in the manufacture of tablets; other grades also used, such as news, writings and bonds.

TABLET WRITINGS. A low-grade writing paper or machine of supercalendered paper; sized for writing purposes.

TACK BOARD—1201. A term applied to a light-weight, stiff, gray or black solid chipboard; used in the construction of tack boxes.

TAG BLANKS. *See Tag* board.

TAG BOARD. A term applied to various weights and qualities of a manila colored cardboard; made of mixed papers, mechanical pulp, sulphite or rope stock; used for the manufacture of various kinds of shipping tags; generally has a printing or writing surface.

TAG ENVELOPE. An envelope, so constructed of heavy document manila that it may be used both as a tag and for enclosures; used in connection with shipping, for enclosure of special instructions; as for installation of electric motors, etc.

TAPE, PAPER. Paper made in narrow widths in rolls for a variety of purposes; many grades of paper used.

TAPPING BOARD. Hard fiber, leather or sulphite pulpboard, used in the construction of cheap shoes.

TAR BOARD—1211. A cloth board, containing tar and hard rolled; generally used for high grade book covers.

TARGET BOARD. Stiff binders board, one side covered with olive drab lining, reverse side covered with news liner; used for field targets on government rifle ranges.

TARGET POSTERS. News or other cheap paper, used for covering holes in target board after firing.

TAR PAPER. *See* Tarred Felt.

TARRED FELT. A building felt, saturated with tar; used in the construction of buildings, etc. *See* Saturated felts.

TEA PAPER. Colored sulphite wrapping paper; used in making a container for individual packages of tea.

TELEGRAPH MANILA. A cheap yellow-colored manila writing paper, made of mechanical pulp or sulphite pulp; sized for writing; used for the writing of telegraph messages for transmission and delivery and for railroad waybills, etc.; called chemical manila when made from chemical fibers; called railroad manila and manila writing when mixed with mechanical pulp.

TELEGRAPH PAPER. *See* Telegraph manila.

TELEPHONE MEMO. Small blocks or pads of book or writing paper; made for convenient use in making memorandums and usually attached to or near telephones.

TEMPLET BOARD. Hard-rolled press board, made of mixed papers on wet machine; made in large sheets; used by foundries and machine shops for making templates and patterns.

TEST BOARD. Chip or jute lined board; used in the construction of shipping containers to conform to definite strength specifications.

TEST CHIPBOARD—1202. A solid chipboard, which must conform to definite strength requirements when used in the manufacture of containers for interstate transportation.

TEST JUTE BOARD. Solid board made wholly or principally of sulphite or sulphate pulps, the strength of which meets specific requirements for special uses.

TEXT—617. A kind of high grade uncoated printing paper, with smooth but dull finish, of good texture and appearance. This paper is often made with some rag stock and is used chiefly in the production of high grade or expensive book.

TEXTILE SPOOLS, PAPER. Spools, cones or cores, made from a combination board of light weight chip base stock, with surfaces of vatliners of a desired color; used for winding yarns.

TEXTILE TISSUE. Strong colored tissue paper, cut into strips and twisted into thread or yarn for making paper textiles or fabrics of light weight.

THREE-PIECE BOX. A paper pulp box (carton) consisting of a body piece with separate ends attached to the body by means of flanges. The ends may be attached inside the body with the flanges projecting outwards (recessed end) or either inside or outside of the body piece with the flanges projecting towards the body (capped end).

THICK CHINA. A coated non-pasted cardboard, coated two sides; made of over-issue news, on a multi-cylinder machine; carried in an unusual variety of colors; particularly adapted for theater tickets; practically a railroad board in light weights.

THREADED FELTS. A heavy sulphite or sulphate wrapping, to which has been applied a coating of asphaltum and covered with yarn, running one or both ways across the sheet; exposed, or covered with another sheet of the same or different kind and weight of wrapping paper.

TICKER PAPER. *See* Ticker tape.

TICKER TAPE. Narrow rolls of white book paper; used on ticker machine to indicate market and stock report.

TICKET BOARD. Bogus bristol, thick china or cheap sulphite board; used for various ticket purposes.

TICKET PAPER. Bristols, translucents or tough check; used by railroads for tickets; sometimes specially treated or coated to prevent counterfeiting; also a good grade of writing paper or bond, which may have the safety feature.

TICKET STOCK. Coated board, same colors as tough check but with a base of news.

TINFOIL PAPER. Paper coated with tinfoil, the latter being tin in a finely divided state and pasted on the surface of the paper; used for decorative wrapping and preservative purposes.

TIRE CONTAINERS. Receptacles made of cheap boxboard; used for packing and transporting rubber inner tubes.

TIRE ROLLS. *See* Tire wraps.

TIRE WRAPPERS. *See* Tire wraps.

TIRE WRAPS. Plain kraft, waterproofed wrapping or case lining paper, or string-inserted waterproofed wrapping; in 50 or 100 yard rolls from 1½ to 6 inches wide; used for wrapping tires. *See* Automobile tire wraps.

TISSUE MANILA. Manila colored tissue, often made of manila or jute fiber, rag or sulphite.

TISSUE PAPER—7. A general term indicating a class of papers made in weights lighter than 10 to 12 pounds, 24 by 36, 480; made on Yankee or Harper machine generally, or on a single-cylinder machine; glazed or unglazed; of rag, sulphite or rope; used for a large variety of purposes.

TOBACCO BAGS. *See* Tobacco paper.

TOBACCO PAPER. Manila or colored sulphite and mechanical pulp wrapping paper, sometimes coated; fairly bulky but pliable and soft, so that when used as a container for plug cut or other smoking tobacco, the package when felt will give the impression of containing fresh tobacco.

TOILET TISSUE—721. A kind of sanitary tissue paper, made of mechanical pulp or sulphite; creped, smooth or rough finished; sometimes impregnated with small quantities of a waxy substance; finished in rolls or sheets and used for toilet purposes.

TONED PRINTINGS. A term aplied to a shade or tint of book paper bordering on buff; the natural color of bleached wood pulp.

TOOTH. A term used to denote the depressions between the fibers or groups of fibers in the surface of a sheet of paper; refers principally to drawing papers and papers of low finish.

TOUGH CHECK. A strong cardboard, made either of rope stock or extra quality strong unbleached sulphite on multicylinder machine; coated; used for tickets and tags, where strength is essential; usually coated on both sides.

TOWELING—03. A light weight absorbent paper, made of woodpulp or waste papers; creped or crinkled; used as a substitute for cloth towels.

TOWEL PAPER. *See* Toweling.

TRACING PAPER—924. A kind of transparent, thin, light-weight writing paper; used for tracing original drawings or plans; its transparency makes possible blueprinting these tracings.

TRACING TISSUE. A tissue paper of considerable strength and transparency, used for tracing patterns and drawings.

TRADEMARK PAPER. Paper containing a mark in the sheet, used primarily to distinguish it from any other paper and to confirm its ownership.

TRANSFER PAPER. (a) Cheap news in various colors; used for street railway transfers. *See also* Railroad transfer paper.

(b) Light-weight tissue or book paper, on which is printed a design or colored picture for transfer to some article; includes embroidering transfer pattern, pottery tissue, decalcomania paper, etc.

TRANSLUCENTS. A soft cardboard, pasted or non-pasted, made of soda pulp with both sides clay coated; used for booklet covers, window hangers, cards, etc.

TRANSPARENT MANIFOLD. A very thin manifold paper for use with duplex carbon; transparent, so as to be read through.

TRANSPARENT PAPER. A general term applied to thin paper through which can be seen an object against which it is held.

TRAYS, PAPER. A small dish, made of single manila-lined chip, single point manila-lined chip, or solid newsboard; used for butter, lard, pickles, etc.

TRIMMED. A term applied to paper that is cut or trimmed on two or more sides to insure exactness of angle.

TRUNK BOARD. A stiff binders board, made in large sizes; used in the construction of trunks. *See* Binders' board.

TRUNK WRAPPING. A general term to designate wraping paper used to wrap traveling bags and trunks during shipment and storage; it is generally a heavy sulphite, kraft or rope paper.

TUBE BOARD. Strawboard or chipboard; used for winding either straight or spirally into form of a tube; used for mailing or container purposes.

TUBE PAPER. *See* Tube board.

TUB-SIZED. A term applied to paper which has been passed through a bath of glue or starch, and subsequently air or loft dried; the glue or starch improves the quality of the paper, as well as the sizing quality; used in connection with bonds, writings, ledgers, etc.

TURMERIC PAPER. Absorbent filter paper, treated with extract of turmeric root; used in chemical laboratories to indicate the presence of small quantities of acid.

TWINE, PAPER. *See* Paper twine.

TWISTING PAPER. Either strong tissue or wrapping; used for the manufacture of cords, twines, and yarn; also in the manufacture of carpets, rugs, furniture, woven paper fabrics and bags, etc.

TWO-PIECE BOX. A paperpulp box (carton) consisting of a body with four closing flaps at one end, in which the flaps are a part of the body (not stitched or otherwise fastened on) and with a separate cover, capped or recessed, attached to the other end by means of flanges.

TWO-SIDES COATED PRINTING PAPER—6001-6021. A kind of printing paper, either single or double coated on both sides of the sheet.

TYMPAN PAPER. A kind of paper, used by printers for packing between the cylinder or the platen and the sheet in printing process; it is always finished in rolls, in widths equal to the standard widths of the printing press and is generally a stiff manila colored wrapping, oiled or uncoated, made of jute, manila and sulphite.

TYPEWRITER MANIFOLD. Light weight paper of bond characetr; made of rags and sulphite; used in 7, 9 and 13 pound weights for making a number of carbon copies at one time on the typewriter.

TYPEWRITER PAPER. Bond and writing paper, cut 8½ by 11, 8½ by 13, and 8½ by 14 inches in size; packed in ream boxes and sold as typewriter paper; used in 13, 16, 20 and 24 pound weights; made of rag, sulphite, soda and cotton linters.

TYPEWRITING PAPER. *See* Typewriter paper.

U

UNBLEACHED PAPER. Paper made from pulp that has not been bleached.

UNCOATED BLANKS—3001-3011. A term applied to non-pasted or pasted blanks to which a coating of clay has not been applied.

UNCOATED COVER PAPER—42. A term applied to a group of cover papers that have not been coated but are made with various finishes and may or may not be decorated.

UNCOATED MILL BOARD. *See* Uncoated paper.

UNCOATED PAPER. A general term used in connection with book, cover bristols and blanks that may be coated, to indicate that stock is not coated or glazed.

UNCOATED PRINTING PAPER—61. A general term applied to a

group of printing papers which are used without a coating of clay on either side.

UNGLAZED FINISH. A term applied to papers with dull finish that have not been given glaze or gloss; such as antique, machine finish, English finish, or low finish bonds.

UNSIZED PAPER. Paper to which no sizing has been added, either during or after its manufacture.

V

VARNISH LABEL PAPER—618. A kind of uncoated printing paper, made for label purposes; sufficiently sized to withstand a coating of varnish after printing.

VAT-LINED. A term designating the process of applying a liner to a board or cardboard, by use of a multi-cylinder machine, by having a different stock in the first or last vat.

VAT-LINED CHIPBOARD. A chipboard, having a liner formed in the process of manufacture on a multi-cylinder machine, of a different color or quality than its center or filler; liner made on a different mold than the filler and all the plies brought together while wet and compressed at the press rolls.

VAT-LINED STRAWBOARD—1042. A combination strawboard, vat-lined with mixed paper stock.

VAT PAPER. An English term applied to paper made on a cylinder machine, on account of the vats in which the cylinder mold revolves.

VEGETABLE PARCHMENT. A term applied to waterproof, greaseproof and partially transparent paper, produced by passing a water leaf sheet, made of rags or sulphite, through a bath of dilute sulphuric acid and immediately washing; used as a sanitary wrapping.

VELLUM FINISH. A term used to describe or indicate any paper or cardboard finished as vellum; obtained by the calendering or plating process.

VELLUM PAPER. A very high grade natural or cream-colored heavy paper similar to ledger, except that it has a slick or oily appearing finish, produced by the use of oils; used for diplomas, embossed resolutions, marriage certificates, etc.

VELVET FINISH. A term applied to a finish given to paper or cardboard and so named because of its similarity in feel to velvet; a low antique finish, dull in surface.

VENEER. Thin pulp or fiber board, or heavy ledger, highly glazed and used for coverings.

VISOR BOARD. Jute board, made of strong sulphite pulp, having good bending qualities; used for making cap visors.

VULCANIZED FIBER. Often called hard fiber; paper or board rendered hard and waterproof; waterleaf paper is passed through a bath of strong zinc chloride and washed; several sheets pressed together while wet into a hard compact mass, used for various fabricated articles such as washers, etc.; also used as backing board.

VULCANIZED PAPER. A paper or board which has been treated with a strong solution of zinc chloride. *See* Vulcanized fiber.

VULCANIZING PAPER. A waterleaf sheet, made of rags or sulphite to be treated in a zinc chloride bath in the manufacture of hard fiber and other vulcanized paper products.

W

WAD PAPER. Chipboard, used to cut into small discs and used in shotgun shells.

WAGON BOARD. *See* Buggy board.

WALLBOARD—113. (a) A kind of very heavy board, composed of a number of layers of chip, binders, or pulpboard, molded or pasted together and generally sized, either throughout or on the outer surface.

(b) A general term used to indicate a composition material used as substitutes for lath or for lath and plaster in the construction of partitions, side-walls and ceilings in interior construction; commonly known as asbestos wallboard, gypsum wallboard, gypsum plaster board and wallboard made entirely of old papers or woodpulp.

WALLETS. A folder, made of jute or rope stock, having a pocket or pockets.

WALL PAPER. Heavy paper, made largely of mechanical pulp, similar to news print or otherwise, is used as a covering for interior walls and ceilings for decorative purposes; high grades of wall paper are made of better quality of stock.

WASHERS, PAPER. Discs, with a round center hole, made of hard-rolled chipboard, tar board or hard fiber; used for various purposes as a substitute for metal washers.

WASTE BASKETS, PAPER. Containers, formed to represent a basket for waste paper or trash; made of hard fiber, press board or molded wood pulp.

WATER-COLOR PAPER. A drawing paper with a surface more pebbled than ordinary; pebbling slightly tending toward a geometrical pattern; faintly resembling prepared canvas for oil painting; sized hard; surface firm but not "greasy"; water color when applied should not flow, neither should the paper rob the color of its brilliancy.

WATER FINISHED. A term applied to paper that has been highly glazed or finished by the action of the machine or supercalenders on the surface of the sheet which has been moistened immediately before entering the rolls of the calender; also applied to highly glazed wrapping paper, obtained by being calendered on a calender stock equipped with "water boxes," and compound levers to increase the pressure on the rolls, while the paper is being calendered.

WATER FINISH SULPHITE WRAPPING—871. A kind of sulphite wrapping paper, made wholly or principally of sulphite pulp, and moistened before passing through the last stack of calenders on the paper machine to produce a glazed surface.

WATERLEAF PAPER—002. A kind of blotting paper, used for conversion by chemical processes into vegetable parchment, vulcanized fiber, etc.; the term waterleaf is sometimes used in connection with filter paper and commercial blottings.

WATERMARK. (a) A term applied to a distinctive mark or design; produced by the raised pattern on the dandy roll or the wet sheet before going to the couch roll; includes the laid mark.

(b) A term applied to a distinctive mark or design produced by raised design on rubber rolls, pressing against the sheet as it goes over the first drier or baby drier.

WATERPROOF. A term applied to any paper or board that has been heavily sized or treated to resist moisture; indicates that water or moisture, under ordinary conditions, will not penetrate within a limited time; this is a relative term.

WATERPROOF BAG. A paper bag made of duplex kraft with center of asphaltum.

WATERPROOF CARTRIDGE PAPER. *See* Cartridge paper.

WATERPROOFING FELT—405. A paper used for building purposes which is treated to render it waterproof.

WATERPROOFED. A general term applied to any paper or board that has been heavily sized or treated to resist moisture.

WATERPROOF SHEATHING—220. A kind of sheathing paper, made wholly or partially impervious to moisture by extra sizing during manufacture or by later treatment.

WATERPROOF WRAPPING. A term used to designate paper which has been coated with asphaltum, or a duplex sheet filled in the center with asphaltum to make a highly waterproof sheet; it may be used as a wrapping paper or a case lining to protect the contents against moisture.

WAXED PAPER. A wrapping paper that has been passed through a bath of wax or paraffin or that has been coated or treated with wax or paraffin; generally used for various wrapping purposes.

WAXED TISSUE. Tissue paper that has been waxed; used for sanitary purposes. *See* Waxed paper.

WAXING PAPER. Any paper, which may be treated to produce waxed paper; should be sufficiently slack sized to absorb the wax of paraffin. *See* Waxed paper.

WAX STENCIL. Stencil paper of board, that has been coated with wax or paraffin.

WAYBILL PAPER. Light weight yellow or pink writing paper, made of sulphite and mechanical pulp; used for railroad waybills. *See* Railroad writing.

WEB-CALENDERED. A term referring to a process of finishing paper in which the paper is passed through a calender stock in a continuous sheet or web.

WEB NEWS. A term used to indicate news print in rolls or a continuous web.

WEDDING BRISTOL—33. A term applied to a group of high grade bristols made by pasting together two or more sheets of finished or unfinished paper of rag content in different thicknesses or plies; plated to give various finishes; used for cards, announcements, etc.

WEDDINGS—907. A kind of superfine writing papers of medium to heavy substance, slightly modified for better folding; exceeding delicacy of texture; finish usually of the vellum or kid style, i.e. smooth to the touch but lacking in sheen or glare; may carry other finishes, as high plate or linen; particularly adapted to steel engraved wedding announcements; frequently used for social correspondence.

WEIGHT. A term used to indicate a quantity of paper; has special application as a term used to indicate the basis of a single sheet of paper, in terms of the actual or nominal weight of a ream of that paper, of some standard or arbitrary size. *See* Basis weight.

WELL-CLOSED FORMATION. An even regular formation of the fibers, producing an even, uniform appearance to the sheet as opposed to a wild formation which gives a mottled, cloudy appearance.

WESTERN M. F. BOOK. A term applied to book paper made in other than the Eastern States; it was thought that such paper had somewhat different qualities than similar paper made in the East; usually contained less soda pulp and more sulphite and in some cases contained white shavings; applies usually to cheaper grades.

WHALEBONE PAPER. A stiff, hard-rolled, chemically treated jute board, resembling fish paper; used as a substitute for whale bone in stays and corsets for insulating purposes.

WHITE DIVIDER BOARD. Cardboard, made of over-issue news and sulphite; white colored throughout; used for separating candy layers. *See* Chocolate layer board.

WHITE FIBER SHEATHING—221. A kind of sheathing paper, made entirely of Mitscherlich pulp, highly sized and with hard surface.

WHITE MILL BLANKS. Cheap cardboard, made of over-issue news and white shavings; used for cheap advertising and window decorating.

WHITE NEWS MILL LINED STRAWBOARD. A strawboard, which has been lined with newsprint, while yet in the roll and before leaving the paper machine.

WHITE SULPHITE PAPER. A term applied to a paper, made of bleached sulphite pulp, having strength and good appearance.

WHITE NEWS SHEET LINED STRAWBOARD. Strawboard, which has been lined with newsprint after leaving the paper machine and cut into sheets before lining.

WILD FORMATION. An irregular formation of the fibers, producing a cloudy or mottled appearance in the sheet; particularly noticeable in long fibered papers, such as kraft.

WILLESDEN PAPER. Any paper, treated with ammoniacal solution of cupric oxide, which produces a gelatinous effect on the surface, somewhat resembling parchment.

WIPING PAPER. A paper, used for wiping or cleaning type; generally a butcher's manila or smooth surfaced wrapping.

WIRE MARK. A term applying to the surface given a sheet of paper by contact with the wire on a paper machine; generally a diamond or square shape.

WIRE SIDE. That side of a sheet of paper which has come in contact with the wire of the paper machine, during the process of manufacture.

WIRE WRAPS. Duplex, anti-tarnish paper, kraft on one side and green or blue on other side; used for wrapping rolls of wire.

WOOD PULP. Pulp made from wood and suitable for making paper; produced by one of three chemical or one mechanical process; such as soda, sulphite, sulphate and mechanical pulp.

WOODPULP BOARD. Woodpulp board, commonly known as pulp board, is used for various purposes such as tablet backs, pie plates, cake boards, cracker layer board, set-up boxes, etc.

(a) Filled: made from mixed papers with vat-liner on both sides made of manila clippings or mechanical pulp.

(b) Solid: made of mechanical pulp.

WOVE. A term used to indicate that in making a cover, wiring or bond paper, a dandy roll was used with a cover similar to Fourdrinier wire (instead of a "laid" dandy), in order that the two sides of the sheet might be nearly alike. *See* Laid.

WRAPPERS. A general term applied to paper used for wrapping purposes as the outer covering of various kinds of articles.

WRAPPING PAPER—8. A general term applied to a class of papers made of mechanical pulp, sulphite, sulphate, straw, rope, jute, burlap, old rags and mixed papers, and used for wrapping purposes as a container or protection; may be made on Fourdinier, cylinder or Yankee machine.

WRAPPING TISSUES—73. A general term applied to a group of tissues whose chief characteristics is toughness and, in some cases, freedom from chemicals likely to produce tarnishing effects.

WRITINGS—9. A general term descriptive of a class of fine papers made on the Fourdinier machine, from rags, cotton linters, sulphite, soda pulp, etc.; hard sized and suitable for conversion by printing, ruling, folding or other methods, for use with pencil or pen and ink for commercial or social purposes.

WRITING PAPER. Any paper that is commonly used for writing purposes, either with pen and ink or with pencil. *See* Writings.

Y

YARNS, PAPER. Paper or tissue twisted in a manner suitable for weaving into carpets, rugs, bagging, paper fabrics, etc.

YELLOW WAYBILL COPYING. Yellow copying tissue of sulphite, jute or mechanical pulp; used for duplicating railroad waybills.

Z

ZINC LINER. Refers to the use of zinc plates on top and bottom of each sheet of paper in making the plater "book." A zinc plate, cloth, paper, zinc plate, etc., are used. In the ordinary plate finish, a zinc plate is used only at the top and bottom of the book. The use of a large number of zinc plates puts a deeper finish on the paper; in fact it actually cuts into the fiber.

Wisconsin Mills Complain of Low Water

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., March 4, 1924.—There has been no increase in the level of water in the Wisconsin river and consequently no relief from the lack of power which has caused curtailment of operations in several paper mills. Grinders in the Grandfather Falls Paper Company plant at Merrill are operating at about one-third capacity and mills at Wisconsin Rapids and Biron are forced to greatly reduced operations because of insufficient pulp. One of the mills at Stevens Point also is affected by the low stage of water. Absence of rains last fall is blamed for the low water now. There was insufficient rains to fill the great reservoirs in northern Wisconsin upon which the paper manufacturers depended to supply water during the winter.

Great Northern Paper Co. Gives School

[FROM OUR REGULAR CORRESPONDENT]

ANSON, Me., February 25, 1924.—The Great Northern Paper Company has just given $25,000 to the town of Anson for the erection of a new school house in this town. The company presented the town with a lot several years ago on Main street. Many of the residents of Anson are employed in the Great Northern mills at Madison, across the Kennebec river.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

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THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

ON WHAT BASIS SHOULD RAW MATERIAL BE CHARGED INTO PRODUCTION COSTS?*

W. S. KEMP, THE HOLTZER-CABOT ELECTRIC CO., BOSTON.

I do not feel that I shall be able to offer you any new solution of the problem, for our problem is no different than that which most of you have to face except perhaps that we do have to deal in a larger variety of products than a great many companies.

It was my privilege to briefly discuss with Mr. Scovell the main ideas presented in his paper which he has just read. I think his one thought has been to present a few statements which would form a basis for a lively discussion of this subject.

His last sentence is a question reading as follows: "When, if ever, is it desirable to figure both actual cost and something different?"

As my contribution to the discussion of this subject I propose to cite a condition under which it seems to me many advantages are gained by accumulating what is termed actual cost and "something different."

The Conditions Briefly Stated Are:

1.—The corporation manufactures and sells several lines of product.
2.—Each line of product is made up of several types.
3.—Each type is made up of many sizes.
4.—Many parts are common to more than one type and size.
5.—Most of the raw materials are purchased for general use and not for specific orders.
6.—In the completed product there are usually a few parts which represent a large portion of the total cost and a large number of parts which represent only a small portion of the total cost, which means that these various parts are manufactured in different quantities and at different times.
7.—Much of this product is sold at catalogue prices; also at prices specially quoted long in advance of delivery and before some of the parts are made, in many cases even before some of the raw materials required have been purchased.

Establishing Sales Prices

To fix the sales price on an article before it is manufactured or when only partly manufactured means that its production cost and cost of selling must be in some way predetermined. To revise the cost of the various items of product to a current cost basis every time a quotation is to be made would be utterly impracticable, yet there should be some basis for estimate that would approximate as near as possible the actual cost.

What should this basis be? Well, if I thought you would not get the wrong idea, I should say that the basis should be a standard cost made up of standard material values, standard labor values and normal overhead. Now don't jump at the conclusion that I am making this as a recommendation to be applied to any and all conditions, for I am not. Before such a basis can be properly and safely used under any conditions, the cost system must function so as to properly check and show the comparison between actual costs and standard costs.

The detailed items making up the cost of a product, for example an electric bell, may be shown on a Cost Record. The corporation which manufactures the bell makes several hundred articles, the detailed cost of which is made up in the same manner although the completed product may be quite different.

The brief description of the various part, operations, values, etc., shown on the Cost Record, together with the fact that certain parts are common to other sizes will make it clear to all that such a product must be made on the stock parts order system. That is to say, the manufacturing order would not call for the manufacture of so many bells of this type and size, but instead each part would be manufactured on a separate production order in whatever quantities it could be made most efficiently and economically, all factors being considered, such as capital invested, obsolescence, etc. As these parts are manufactured they are placed in finished parts stores and requisitioned on an assembly order as completed bells are needed.

Production orders for the manufacture of parts under such a system are usually issued on the basis of a high and low limit. Some inexpensive parts which are made on an automatic screw machine, for instance, might be made in quantities that would cover the normal demand for a year, while some other more expensive part, the manufacture of which required no time for "setting-up," might be manufactured only as required for an assembly order. This means that when assembling one of these bells, parts are used, some of which may have been completed one month, some two months, some three months, and so on up to a year or more ago and the raw materials for which may have been bought long before that.

Under such conditions, what should be considered the cost of the product on the date the completed article was assembled? If we decide that it should be actual cost, of what value would such a cost be at that time for determining current or future costs on the same article? So much for actual costs.

Standard Costs

If, however, we have the cost value of this article made up on the

*From 1923 Year Book—Natl. Assn. of Cost Accountants.

basis of certain standard values for materials, labor and overhead, we will have a fixed basis upon which to establish current or future cost estimates. By the use of such a basis the items made of steel are easily summarized, and to the standard cost value may be added or deducted any increase or decrease in the current prices from the standard. A total of the items made of copper, rubber, wood, etc., are in like manner adjusted and we get the current cost estimate of all the material entering into a given quantity of this product. We then apply any change in wages and in normal overhead rates and thus easily and quickly establish a cost estimate of this article based on current values. These estimated or predetermined costs are constantly being checked with the actual costs and the difference between the two are shown in the proper adjustment accounts.

Under conditions which justify the practice of charging raw material into production cost at standard prices, the following advantages are gained:

1. It furnishes a basis on which to establish standard material cost values in the finished parts and completed product inventory, the loss or gain on materials purchased for manufacture being accounted for at the time of their receipt to the extent that their cost varies from the standard prices established. Moreover, these losses and gains are easily shown for management purposes by classes of material.

2. It simplifies cost accounting, as one value remains in force over a considerable period of time and can be applied to the cost of product the moment an order or part of an order is completed. This feature is of great importance when departmental accounting is carried on, as standard values permit the debits and credits between departments being made at the time the product is transferred.

3. It does away with the variation in material costs on production orders and puts cost on a fair comparative basis. Under this method the variation in the cost of materials shown on the comparative cost record is due only to more or less material being used on the order than the amount allowed, thereby showing conclusively manufacturing efficiency or lack of it.

I may state that the company referred to uses hundreds of tons of different kinds of metals in a year, which are manufactured into millions of pieces that go into finished standard products, so that it will be readily seen that any attempt to tabulate constantly fluctuating cost figures would be a well-nigh impossible task, and if accomplished, such figures would be more confusing than otherwise with reference to any determination of a selling price. Furthermore, they would be so late in reaching the accounting department as to delay any closing of accounts beyond a reasonable time limit. Therefore, the necessity of a standard method of tabulating cost is quite apparent in the business referred to.

The above applies to production material. Expense material should be charged into overhead expenses at actual cost and overhead expenses into cost of production through a normal overhead rate.

As an addition to my paper, I should like to amplify the statement made by Mr. Hutchinson of Texas. It seems to me the sales department is entitled to its normal profit. If the factory has quoted to the sales department a factory cost, then the sales department should receive from the factory that material at that price quoted; and if the factory for any reason is unable to produce the material at the price quoted, or if it makes a profit on it, it should take the loss or gain, and this of course should be properly shown in the various adjustment accounts.

R. WILLIAMSON, Toronto: I want to congratulate Mr. Kemp on his excellent paper; I think it is simply splendid. I recall that two or three years ago the methods he described were tried out very successfully in the piano-action business, where about 132 subsidiary parts are involved.

W. B. CASTENHOLZ, William Castenholz & Co., Chicago: I wish to ask Mr. Kemp a question. I think you indicated in your paper that you take the profit or loss on materials at the time they are put into stock; that is, the profit or loss determined by comparing the set standard price placed upon the material with the purchase price. Is the credit or debit to profit or loss respectively put into a reserve account or directly into the profit and loss account?

MR. KEMP: It is carried from month to month in what we call our factory adjustment statement, and at the end of the accounting period it is credited or charged directly to profit and loss.

MR. CASTENHOLZ: Then on what basis is the final inventory valued?

MR. KEMP: On the basis of cost or market, whichever is lower. We really have two inventory values: in checking up our stores account, we inventory at the "take-in" value; but for the purpose of determining profit and loss, we take the inventory at cost or market, whichever is lower.

MR. CASTENHOLZ: Then suppose that there is an increment of profit, due to these purchases, which is transferred as you say, at the end of the year to profit and loss. When the inventory is taken, let us assume that cost is lower than market and, therefore, the inventory is taken on the cost basis. Must not an adjustment be made for that profit which has been derived from inventory adjustment during the year, if some of the material is still on hand?

CHAIRMAN SCOVELL: We have had an issue raised here which is so important that I think we must take some time to dispose of it. Suppose material is estimated at 100; it is acquired at 90, so that there is a ten-point profit at the time it is taken into stock. But when you come to your annual or semi-annual inventory, do you lay aside your nice calculation of standard cost and take the inventory straight down at cost or market, whichever is lower?

MR. KEMP: Yes.

MR. CASTENHOLZ: And forget the Inventory Adjustment account?

MR. KEMP: Except the balance of the account.

MR. CASTENHOLZ: Let us assume that in September some materials, estimated at 100, have been purchased at 90 and have not been used, so that they are on hand at the time of the annual inventory; let us assume further that there has been no drop in the market, and that the value at inventory-taking time is still 90. In that case an inventory at 90 must in effect restate an asset previously "taken in" at 100, so that a profit and loss statement based on the inventory would in effect eliminate the 10 points of profit (developed as the difference between the estimated price and the acquisition price).

CHAIRMAN SCOVELL: You are perfectly well aware that Mr. Montgomery in his "Auditing," uniformly recognized as an authority on accounting, says that if you state one balance sheet accurately and progress another year and state that succeeding balance sheet accurately, you must necessarily have stated the profit accurately in the meantime. As far as I can see, Mr. Kemp does just that.

MR. CASTENHOLZ: But the profit is taken (to the extent of the difference between estimate and purchase price) when the goods are received, not when they are used.

CHAIRMAN SCOVELL: That is right, as I understand it.

MR. CASTENHOLZ: So that, if the profits are taken when the goods are received, and still appear at the end of the year, there must be an adjustment to square the inventory.

CHAIRMAN SCOVELL: Yes, if you take your inventory at cost or market and what you "take in" at 100 automatically drops to 90, you have an inventory shrinkage at the end of the year.

This concludes our session. At the outset we hoped to secure valuable ideas on the subject of when something besides the actual costs of raw materials will give the most useful results to management, and we are glad to say that our hopes have been realized. Actual costs must, of course, be the foundation of all accurate cost accounting; but it should be apparent to all of you that under certain operating, market and accounting conditions it is advantageous to use something other than actual costs, with proper accounting for the variations from such costs.

THE NATURE OF INCOME TAX*

By Charles F. Seeger

At present accountants differ as to the correct answer to the question "Are income taxes an expense or a distribution of profits?"

In some instances leading firms have treated such taxes as an expense at the time of payment and for the current year. Other cases have been dealt with by bringing into account a provision for income taxes as an expensive item for the period under review. Some have even accrued income taxes in preparing monthly interim statements in spite of the fact that the incidence of this taxation upon going concerns, is entirely dependent upon the final net results of an annual period.

Other accountants have held and still hold that income taxes are a distribution of profits and as such, may, and should be charged against the surplus of a corporation in the same manner as dividends.

Available court decisions dealing with this question are conflicting; the latest United States supreme court decision touching on the subject has been construed to hold that income and profits taxes are expenses of a corporation, yet the actual effect of the complete decision is such as to require the treatment of income and profits taxes as additional income to the shareholders. *How can an item be expense to a corporation and income to its shareholders?*

It would seem that the matter is one worthy of serious attention, so that if possible a uniform method of treament may be adopted in the preparation of financial statements.

The proper solution of the problem involves the application of certain relevant economic and legal principles in combination with generally accepted definitional explanation of the words "profit, income, tax," etc., upon which accounting procedure may be predicated with the assurance that a sound foundation, and not one of mere opinion or expediency, exists.

At this point attention may well be directed to the following lexigraphic views which assist in obtaining a clear conception of the subject matter.

A Definition of Profit

The Standard Dictionary gives, among others, this definition of "profit": "Value acquired over and above the value parted with in the course of acquirement." The following is given in respect to "income": 'the amount of money coming to a person or corporation within a specified time or regularly (when unqualified, annually), whether as payment for services, interest, or profit from investment; revenue." Appearing under the definition of income, is the following definition of "income tax," "a tax levied upon the income of profits of individuals." The meaning of levy as expressed in the same dictionary is, in a legal sense, "(1) to seize or take (property) by virtue of a judicial writ thereunto commanding." (2) To impose or assess (a tax) on property and collect it under authority of law."

If the foregoing definitions are correct and controlling, then income tax is that part of the profits seized or taken by government and is not a deductible expense in arriving at the amount of profit made. Theoretically, most taxes are in the nature of a seizure of a portion of property, as, for example, immediately the tax is assessed the title to real estate is clouded until the lien of taxation is removed.

Generally accepted economic laws and theory, with regard to taxation, appear to support the definitions just given as well as the resulting hypothesis. For instance, Ely, the economist, has said, "Nowhere has there ever existed any such thing as absolute private property. The rights of private individuals have always been of a more or less limited nature, and among the rights reserved by the people in their organic capacity will be found in every civilized state the right to take, for such purposes as the law-making power may deem fit, a portion of the wealth produced by its citizens." Another pertinent quotation from the same source is, "Government, a partner in production-taxes have been defended on still another ground. It is said that government participates in all production, and is as much a factor in the creation of wealth as is land, labor or capital. . . . The argument continues by asserting, that as government is a factor in production, it is entitled to a share of the wealth produced." This, too, is a sound position, but it must not be overlooked that peculiar principles regulate the share of government. The portions which go to land, to labor, and to capital are determined, in a great measure, by voluntary agreement, whereas government by virtue of its own sovereignty determines what share it shall take.

Prof. Taussig On Profit

In "Principles of Economics," Taussig states, "Then it is clearly proper to provide that profits above a given rate of return on the investment shall be divided with the state. The amount going to the state in such a case may be entitled a 'tax' or a 'share.'"

Now if, according to broad economic principles, taxation is based upon the right of people in their organic capacity to take a portion of the wealth produced by its citizens, and the government is a partner in production and as such is entitled to a share of the wealth produced and has a right to say what share it shall take and if it is clearly proper to provide that profits shall be divided with the state and the amount going to the state may be properly entitled either as "tax" or a "share," it would seem that our income-tax laws come squarely within the purview of these economic laws and certainly represent in the final analysis a distribution or a division of profits and not an expense.

It must be admitted that the question has economic phases which might appear to support the opposite view. For instance, in discussing the subject of profits the economists incidentally include, among the deductible items, taxes. This, however, does not seem consistent with their viewpoint or construction of taxation as a share of profit to which the government is entitled. Is it not possible that in defining profit in that manner the economists have in mind the portion of profit which remains to the venture after deducting the government's preferred share?

It would be improper to attempt to decide the question submitted without presenting the recent decisions of the federal courts in the case of the Georgia Railway & Power Company vs. Railroad Commission of Georgia.

Commission Reversed

This case had to do with the fixing of rates and was carried to the Federal courts by the power company. In establishing rates the State Railroad Commission had allowed the Georgia Railway and Power Company to charge its Federal income taxes as a cost of operation. Federal Judges Bryan, Jack and Sibley, sitting as a special tribunal, reversed the commission on this point in the following language—(Fed. Rep. Vol. 278, page 242):

"But we disagree with the commission in allowing the Federal income tax as an expense of business. It is laid with substantial uniformity on all persons and business, certainly on all comparable to this. It is assessed on the net profit of business after it is done, and payable the following year. The rate of it has often not been fixed until late in the year affected. The acts laying the tax expressly declare it not to be allowable as an expense of business for the purpose of this tax. It is that part of the profit realized which is demanded by the government in return for its manifold services and protection. Though in some businesses the tax has

* From the Journal of Accountancy.

been added to the price and passed to the consumer, this has not always been done. In banking and other money-lending businesses, usury laws were not relaxed because of the income tax. Usurious interest is not legalized, because the excess is to be paid over as income tax. Holders of government securities above the exempted amounts at so law a rate of return as 4¼ per cent must pay the tax out of it. To permit law-controlled business to pass this tax to the customer, except as it may come to be reflected in generally higher returns obtained by invested capital would be to subvert the policy of the law that imposes it, and, instead of placing them on an equal footing with other investments of capital of similar security and permanency, would be to give them an advantage. It appearing that a net sum of $45,364.00 was distributed as normal federal income tax over the months dealt with above in the accounting of operating expenses and taxes, the above profits estimated for a year should be increased by that sum, making $543,383.32 as the aggregate result."

Case Taken to Supreme Court

The power company carried the case to the United States Supreme Court, which,, on June 11, 1923, affirmed the decision but stated that the lower court erred in disallowing the Federal taxes as a deduction. Yet the Supreme Court did not positively class the tax as an expense item but as either an expense or a charge in calculating whether the rate did yield a proper return.

However, the Supreme Court further stated:

"It must be borne in mind as pointed out in the Galveston Electric Company against City of Galveston, that, since dividends from the corporation are not included in the income on which the normal Federal taxes are payable by stockholders, the tax exemption is, in effect, an additional return on the investment."

The principle enunciated with regard to the deductibility of Federal taxes in both the Galveston and Georgia cases seems paradoxical, when compared with the actual effect of both decisions.

The following will be found in Montgomery's Income-Tax Procedure (page 276, 1920 edition, and page 422, 1922 edition):

"Should Taxes Be Eliminated from Profits in Computing Bonus?"

"In calculating the amount of tax to be paid by recipients of commissions, bonuses, etc., which are based upon the profits of a business or a department thereof, the question arises as to the obligation, if any, of such recipients to assume a share of the tax paid by the business. Payments of such commissions, etc., are expenses of the business and should be treated as such by deducting them from gross income before stating the net profits subject to excess profits and income taxes. It follows, therefore, that since the payments referred to are reported as allowable deductions, no tax of any kind has been paid thereon by the business, but the recipients must personally pay income taxes on any amounts they may receive, subject, of course, to statutory exemptions, other income, etc. Obviously, then, in the absence of any specific agreement to the contrary, it would be unfair to the recipients to compute such commissions, etc., on the income of the business after deducting excess profits and income taxes."

In the next two paragraphs, Montgomery continues this subject and Interalia states:

"In claiming the amount paid to the employe as a deductible business expense, the employer may be said to assent to the position that the employe is not liable to a tax based on net income."

As early as 1918 Montgomery's Income-Tax Procedure stressed the point that income taxes are not an expense (page 302, 1918 edition.)

However, Montgomery has straddled the fence because on page 534 in volume 2 of "Auditing Theory and Practice," published recently, the following appears:

Profit-Sharing Plans

Distribution of earnings:

"When a distribution of a percentage of a net earning is made, it becomes necessary to determine exactly what earnings and expense items should be included in a statement prepared for the purpose and whether the amount provided for Federal income and profits taxes should be deducted in determining the net earnings. The taxes to be paid and the amount of the profit-sharing distribution are affected each by the other, since the latter is an allowable item of expense. It is evident that the amount intended to be distributed is a part of the net profit which is available for dividends. The average concern considers Federal taxes as an expense which is deducted in arriving at the net profit figure. It follows, therefore, that unless otherwise provided, these taxes should be considered before arriving at the amount on which the distribution is based."

The Students' Department overlooked publishing a court decision squarely in point, which sustained the view that income taxes are not deductible (unless so provided by contract) in determining an employee's profit-sharing bonus.

The decision (as taken from Montgomery) was as follows:

"Decision Edgar W. S. Reeder vs. G. Winthrop Coffin and Quincy A. Gilmore, individually and as copartners, trading as Coffin & Gilmore, Court of Common Pleas No. 3 (Philadelphia), June term, 1918. No. 3268. Extract from opinion:

"We have considered the question of deduction of income taxes before allowing the plaintiff 5 per cent of the net profits as salary. We do not think this deduction should be made, as it is not in any way contemplated by the contract."

A pamphlet issued recently by Prentice-Hall, Inc., entitled, "Profit-sharing Contracts, as affected by Federal and State Taxes," yields the following:

"The recent decision in the case of Stanley vs. Leary, et al., 199 New York supp., 617 (Supreme Court of New York) sustains the view that, in the absence of specific agreement, the compensation should be calculated upon the profits before any deduction for taxes."

In this case the plaintiff was employed as sales manager for a given salary plus 5 per cent commission computable annually upon the net profits. The defendants were co-partners. The contract dated from January 1, 1914. The revenue act of 1917 imposed an excess-profits tax upon co-partnerships.

The decision states "inter alia:"

"The defendants . . . MADE A PROFIT OF $204,459.97 DURING THE YEAR 1917. FROM THIS PROFIT they paid a tax of $86,576.35. In computing the amount due plaintiff, the defendants first deducted the tax paid . . . and based the amount of plaintiff's commission on $117,883.62, the difference between THE PROFITS EARNED by defendants and the sum paid as taxes . . . The income tax provisions were enacted long after the agreement for compensation was made between the parties. They could not, therefore, have contemplated that such a tax would be imposed. This fact as well as the provision in our law for the deductions of salary and other compensation as expenses of the business before the tax is paid may account for the contrary views expressed in Patent Castings Syndicate, Lim., vs. Etherington (1 ch. 306). That ruling was based upon the English income statute. It would seem, therefore, that inasmuch as the amount of plaintiff's commissions was deductible as an item of expense, such computations should be based upon the profits before any deduction for payment of taxes."

Certain words have been capitalized in the foregoing quotation for the purpose of emphasizing the court's viewpoint, as interpreted by the writer, to the effect that profits earned by a concern are determined without first deducting income tax.

Not Deductible in Determining Bonus

In the case of Schoettolkotte vs. Buckeye Cotton Oil Company, heard by Chancellor Heiskell at Memphis, Tenn., in January, 1923, it was decided that Federal taxes were not deductible in determining

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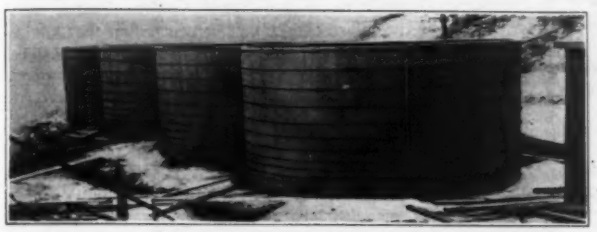

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bonus. This case is pending before a higher court. Other cases involving the same point are now before courts of other states.

It is, therefore, apparent that in the calculation of bonuses present court decisions uphold the calculation before the deduction of the tax.

While the practical side of the problem ought not to control the truth of the matter, nevertheless certain accounting difficulties which arise if income taxes are considered an expense in either rate or bonus determinations, cannot be lightly overlooked.

Co-partnerships Not Subject to This Tax

Co-partnerships, as such, are not subject to this tax and it is believed there is no legal inhibition to a co-partnership owning and operating a public utility which would be subject to statutory rate regulation. Should a corporate public utility be entitled to higher rates than one owned by a co-partnership?

While a public utility owned by a co-partnership or an individual might be profitable such profit may have been offset by losses from other properties as a consequence of which the owners would be subject to no tax.

Then the question of determining the charge for this tax in fixing the rates of a public utility subsidiary to a larger holding corporation which might be subject to the consolidated return rule would seem difficult and especially so if the consolidated return showed no tax.

Somewhat similar difficulties are present in bonus determinations. If federal or other income taxes are considered as an expense, different results will be gotten in calculating the bonus if the employer is a corporation or a Massachusetts trust or a co-partnership or an individual.

The employee might be a new man in an old corporation which made money for the first time in several years and after applying previous losses the employer paid no federal tax. The question then arises, "Would the employee be entitled to have the benefit of the previous losses or should the bonus be calculated after deducting the income tax which the employer would pay if there had been no previous losses?"

In the case of departmental heads employed on a bonus basis, what intricate methods might be required to apportion federal and state income taxes of a holding company to its subsidiaries and their respective departments?

The Logical Conclusion

In view of the foregoing economic, legal and practical aspects of the situation; the fact that dividends are exempt from normal income taxation; the consolidation rule applicable to many corporate groups, and the fact that two or more separate businesses are not severally subject to income tax when owned by one co-partnership or individual, the logical conclusion is, that, in the final analysis, income taxes are a distribution of profits and not expense, and when assessed against a corporate body or group constitute only payment of the shareholders' tax at the source, and, in effect, the courts have so held.

Corporations Must Report Dividends Paid

In accordance with Treasury decision 3558, dated February 25, 1924, all domestic corporations not specifically exempted from taxation must file returns of information on Form 1097 showing the amount of payments of dividends and distributions to stockholders who are individuals, fiduciaries or partnerships. Returns of information will also be required of resident foreign corporations to the extent that dividend payments and distributions are made to citizens or residents of the United States and domestic partnerships and fiduciaries. These returns must be filed not later than March 15, 1924, and shall cover all such payments made during the calendar year 1923.

It should be noted that this requirement is new and the time for filing the returns is comparatively short.

Paper Concerns to Exhibit at Paper Show

That every paper company which exhibited at the Paper Industries Exposition in 1923 would be represented at the Second Paper Industries Exposition at the Grand Central Palace the week of April 7, was the interesting announcement when the Advisory Committee of the Exposition held its meeting at the Hotel Belmont. The whole status of the Exposition was discussed, and since the meeting letters approving the program have been received from several of the members of the committee who were unable to attend.

The report as to space taken by the paper manufacturers was made on behalf of the Exposition by Charles F. Roth and Fred W. Payne and in every case, it was stated, the exhibitors were returned with as large or with larger space, because of the direct business which was traced to the showing made at the Exposition last year.

Plans are already actively under way for a special program at the Exposition by the Technical Association of the Pulp and Paper Industry, which is holding its annual convention during Paper Week. A program of particular interest to both technical engineers in the paper industry, and the machinery and supply men is being formulated by W. G. MacNaughton, Secretary of Tappi, which is one of the biggest technical organizations in the country of engineers in a special branch of industry.

A noteworthy feature of the space contracts which are being placed is the number of firms making paper products which will be represented. The space assigned to the makers of paper specialties is already overflowing, and among the displays of this group will be some of the most unique features of the Exposition. Paper cups, boxes, bags, form a small part of this department, which will be one of the most popular phases of the big paper show for the general public which will attend.

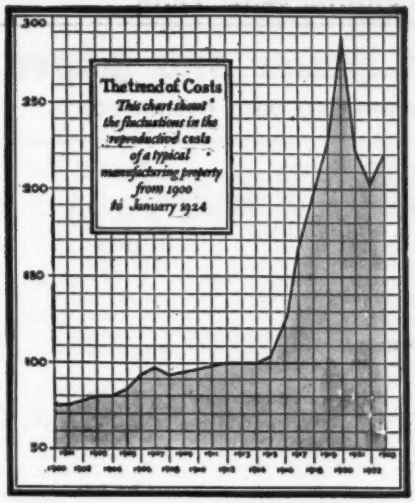
Direct mail advertisers will find that the paper manufacturers will give them a particularly fine opportunity to learn of the paper problem, which is so important in their preparation of advertising copy. Most of the big direct mail advertising houses no longer depend on the judgment of the printers for the selection of the paper needed, but specify the grade and quality which will give the type and illustrations the most attractive presentation. The Paper Show will by its showing of variety of papers, and the special service to be rendered by the exhibiting companies give the direct mail advertiser the best opportunity imaginable for studying paper, as the material on which the success of his printed matter depends.

In the paper machinery and supplies group advance information as to the type of exhibits indicates that there will be even a larger proportion than last year who will have operating machinery as a feature of their booths. The value of the Exposition as a means of working with the paper mill executives is not being overlooked by the big chemical companies which have learned from experience that the Exposition method is a most satisfactory one for the demonstration of products, and for getting in contact with the paper mills which use their materials.

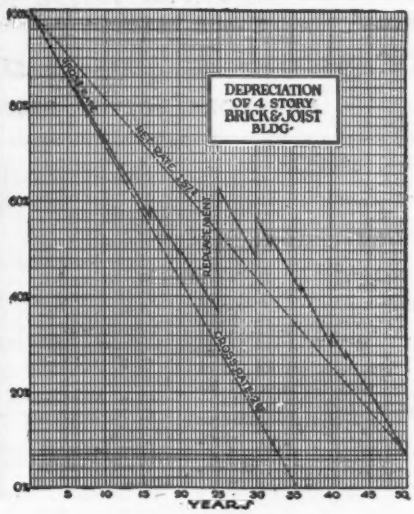
The advisory committee before adjournment decided to send a letter to the entire industry indicating its belief in the Paper Industries Exposition, both as a means of educating the public and the consumer of paper as to paper problems, but of actually bringing about increased business to the exhibitors. The Committee consists of some of the best known of the manufacturers, merchants, supply men and engineers in the industry.

Receiver for Toronto Paper Mills

STEUBENVILLE, Ohio, March 3, 1924.—Garrett B. LeVan of this city has been named receiver for the Toronto Paper Mills Corporation of Toronto, Ohio, and was instructed to take charge immediately of the corporation's business. The receiver was named by the First National Bank of Pittsburgh, Pa., which stated that the Toronto company was unable to meet and discharge its obligations. Receiver LeVan's bond was fixed at $10,000.


The trend of Costs
This chart shows the fluctuations in the reproduction costs of a typical manufacturing property from 1900 to January 1924

Write for monograph U-3 "Property Records—Their Effect on Profit and Loss."



Showing the difference due to replacements, between gross and net depreciation rates.

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SUMMARY

News print .....752 bls., 3,985 rolls
Printing paper .....888 bls., 991 rolls, 17 cs.
Hangings .....41 bls., 1 cs.
Wall paper .....82 bls., 18 pgs.
Filter paper .....90 cs., 5 bls.
Packing paper .....407 rolls
Wrapping paper .....1,150 rolls, 461 bls., 45 cs.
Kraft paper .....1,555 rolls, 126 pgs., 131 bls.
Drawing paper .....19 cs.
Cigarette paper .....2,553 cs.
Tracing paper .....3 cs.
Waxed paper .....5 cs.
Blueprint paper .....56 rolls
Tissue paper .....31 cs.
Blotting paper .....4 bls.
Straw paper .....132 rolls
Miscellaneous paper.....299 cs., 38 bls., 172 rolls

CIGARETTE PAPER

American Tobacco Co., Sarcoxie, Bordeaux, 1,000 cs.
R. J Reynolds Tobacco Co., Sarcoxie, St. Mazaire, 1,030 cs.
DeManduit Paper Corp., by same, 388 cs.
P. J. Schweitzer, P. Gori, Marseilles, 26 cs.
F. P. Gaskell & Co., W. Eldara, Havre, 38 cs.
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Liggett & Myers Tobacco Co., by same, 10 cs.
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New Haven *Times*, by same, 185 rolls.
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Chemical National Bank, by same, 143 rolls.
International Acceptance Bank, Mt. Clinton, Hamburg, 11 rolls.
International Acceptance Bank, Antonia, Hamburg, 90 rolls.
Chemical National Bank, Westphalia, Hamburg, 68 rolls.
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Parsons & Whittemore, W. Maxionus, Helsingfors, 854 rolls.
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Parsons & Whittemore, Natirar, Hango, 921 rolls.

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L. H. Abenheimer, by same, 160 bls. rags.
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Leshner Paperstock Co., Archer, Hamburg, 106 bls. rags.
Union National Bank, by same, 173 bls. rags.
State Bank, Vardulia, London, 427 bls. rags.
State Bank, by same, 174 bls. bagging.
International Acceptance Bank, Barbadian, London, 57 bls. paper stock.
Leshner Paperstock Co., by same, 114 bls. rags.
Katzenstein & Keene, Inc., W. Eldara, Havre, 70 bls. rags.

OLD ROPE

Castle & Overton, Jean Laurent, Antwerp, 10 coils.
W. Schall & Co., Mar Blanco, Barcelona, 73 coils.
Mechanics & Metals National Bank, Antonia, Hamburg, 52 coils.
Waste Material Trading Corp., Westphalia, Hamburg, 72 coils.
Brown Bros. Co., by same, 113 coils.
Brown Bros. Co., Veendam, Rotterdam, 67 coils.
Brown Bros. Co., Exeter City, Bristol, 147 coils.

(Continued on page 74)

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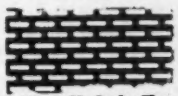

½ x ½ Inch Slots

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Westinghouse

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, MARCH 5, 1924.

While there seems to be some hope of settlement of the labor difficulties which are extant throughout the industry in Norway the strike is making itself felt to some extent in the local markets. There has been a slight stiffening of the price in some of the pulps which have been most severely affected by foreign importations and dealers in the local market say that there is likely to be more if the shutdown in Norway continues. This production will be completely lost and there seems to be no hope of the mills catching up even though the trouble is brought to a speedy conclusion.

One element which makes it almost certain that the strike will not last is the fact that the cellulose industry is not the only one affected, but the fight extends throughout most of the industries of the country. Importers believe that the Norwegian government will surely intervene and put a stop to the whole thing.

Another thing which is having considerable prominence in the market is the fact that a certain group in the industry has definitely come out for a fight on the dumping of large quantities of foreign goods on the local market with a consequently bad effect on things in this country. There seems to be a very strong element in the trade which is backing this movement for organized resistance. Just when this influence is going to make itself strongly felt it is difficult to say, but there is much discussion of the present plan which seems to center in a well established organization in the industry.

Fine papers are moving along at about the same rate of speed that they have been for the past few months with little change either in market conditions or in price. Dealers and manufacturers say that they are getting a fairly good business and that the demand is continuing fairly even in spite of influences that have been brought to bear to alter it.

Book paper is also reported to be in fairly good shape with a gradually growing demand and prices showing a tendency to remain very firm. There seems to be a hardy competition for orders in this field but buyers are moderately anxious to get in and the result is a business that approximates normal. Several large orders have moved through the open market during the past week and this has had a tendency to keep the price at just about the same level.

News print is still very firm with a good demand reported on all sides. The publishers are coming into the market strongly and so far as the local field is concerned the recent merger of two metropolitan newspapers seems to have had little effect. People are consuming just as much newspaper as they have been with the difference that the orders are perhaps a little more widely distributed than they were before.

Kraft paper has shown a distinct tendency to improve and manufacturers seem to be fairly cheerful about the immediate future. The removal of the Norwegian mills from competition with them may have had something to do with this, but there are other elements which also enter into the situation, chief among them probably the fact that buying appears to have returned to normal once more.

Mechanical Pulp

While there has been some slackening off in the demand for mechanical pulp dealers hardly expected that they would be so fortunate as to enjoy indefinitely the remarkably good demand they had for some time. The price is reported to be a little softer in the low ranges.

Chemical Pulp

A better demand for the chemical pulps has pervaded the market during the past week. Prices have been a good deal firmer although a few distressed lots have tended to keep the low range down a trifle. Dealers report that this branch of the industry is in better shape than it has been for some time.

Old Rope and Bagging

Old rope is not in quite so good demand as it was a little while ago, but at the same time there is a fairly good business in it for those who choose to make concessions to get it. Bagging is in practically the same condition as rope.

Rags

Rags are also a little off so far as the demand is concerned with the price holding firm at the same level that it has been for some time. Ever since the infant boom business has been much better in rags and there seems to be nothing to indicate that this commodity is going to lose the ground it gained at that time.

Waste Paper

Waste paper is also a little more slow than it was and some of the higher grades are not moving so well as they might. Prices remain just about the same.

Standard Paper Co. Gets New Mill Site

KALAMAZOO, Mich., March 1, 1924.—The Standard Paper Company, located in North Pitcher street, has acquired a new mill site according to announcement just made by B. C. Dickinson, president of the company. Other than the statement that the concern is contemplating extensions of importance, Mr. Dickinson said he can make no further or more explicit announcement of future plans this time.

The property acquired was purchased from the Chicago, Kalamazoo and Saginaw railroad. It consists of over five acres of land, located between the railroad right of way and Kalamazoo river, practically directly east of the present plant of the Standard.

Deeds have been filed, the transfer papers being signed by A. H. Smith, president of the New York Central Lines.

Venturafin Unit Heater

A unit heater of novel design has just been placed on the market by the American Blower Company, Detroit, Mich. The fan is direct motor driven and in front of it is placed a bank of heating coils designed somewhat like an automobile radiator. The steam pipes are copper or brass tubes, around which a copper ribbon is helically wound to form a continuous fin, thereby greatly increasing the radiating surface.

A single unit which it about 30 inches square has a heating capacity, it is claimed, of 150,000 b.t.u. per hour. They are particularly well adapted for use in rooms of irregular shape or for localized heating where only a part of a large room is to be heated.

Z. M. Crane May Enter Politics

PITTSFIELD, Mass., March 4, 1924.—Z. Marshall Crane of Dalton, Yale, 1900, is being urged by Republican leaders in Central Berkshire to be a candidate for the Republican nomination for Representative in the 5th Berkshire District. Mr. Crane is associated with his cousin Winthrop Murray Crane in paper manufacturing interests in Dalton. He is the owner of the extensive Brookvale stock farm in Windsor and much interested in the Berkshire Museum and Pittsfield Boys' Club, founded by his father the late Zenas Crane. His uncle was W. Murray Crane, for many years a senator at Washington.

May Liquidate Chicoutimi Pulp Co.

MONTREAL, March 4, 1924.—As result of Becker & Co. failure, Chicoutimi Pulp Company directors plan voluntary liquidation and reorganization. There will be no change in parent company, Saguenay Pulp and Paper, which is merely a holding company, the successor of old North American Pulp and Paper Companies Trust. During past year, Saguenay company showed operating earnings at $386,050, making after depreciation and other charges, deficit of $183,828.

Market Quotations

PAPER STOCK SECURITIES

New York Stock Exchange closing quotations March 4, 1924

	BID	ASKED
American Writing Paper Company, pref.	2½	2¾
International Paper Company, com.	37½	38
International Paper Company, pref. stamped	64	65
Union Bag & Paper Corporation	58	60

Paper

F. o. b. Mill			
Ledgers	11.00	@	38.00
Bonds	9.00	@	45.00
Writings—			
Extra Superfine	14.00	@	30.00
Superfine	14.00	@	30.00
Tub Sized	10.00	@	15.00
Engine Sized	8.00	@	11.00
News—f. o. b. Mill—			
Rolls, contract	3.75	@	4.00
Rolls, transit	3.75	@	4.25
Sheets	4.25	@	4.50
Side runs	3.50	@	4.15
Book, Cased—f. o. b. Mill—			
S. & S. C.	7.25	@	9.00
M. F.	7.10	@	8.85
Coated and Enamel	9.00	@	14.00
Lithograph	9.00	@	14.00
Tissues—f. o. b. Mill—			
White No. 1	.80	@	.90
White No. 2	.85	@	.95
Colored	1.15	@	2.00
Anti-Tarnish	1.50	@	2.00
Kraft	.95	@	1.15
Manila	.78	@	.85
Kraft—f. o. b. Mill—			
No. 1 Domestic	5.85	@	6.20
No. 2 Domestic	5.15	@	5.75
Imported	4.75	@	5.20
Manila—			
No. 1 Jute	7.50	@	9.00
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.25
No. 2 Wood	4.00	@	4.50
Butchers	4.25	@	4.75
Fibre Papers—			
No. 1 Fibre	5.50	@	5.75
No. 2 Fibre	5.00	@	5.25
Common Bogus	3.50	@	—
S. Screening	3.25	@	3.75
Card Middles	4.00	@	5.00
Boards—per ton—			
News	55.00	@	60.00
Straw	61.00	@	63.00
Chip	50.00	@	55.00
Binders' Boards	70.00	@	75.00
Sgl. Mla. Lt. Chip	65.00	@	75.00
Wood Pulp	70.00	@	75.00
Container	70.00	@	80.00
Sulphate Screenings—			
Coarse	.80	@	.90
Refined	1.75	@	2.00
Ground Wood—			
Screenings	30.00	@	35.00
Glassine—			
Bleached, basis 25 lbs.	12.00	@	15.00
Bleached, basis 20 lbs.	14.00	@	17.00

Mechanical Pulp

(Ex-Dock)			
No. 1 Imported	29.00	@	34.00
(F. o. b. Mill)			
No. 1 Domestic	29.00	@	34.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)			
Sulphite (Imported)—			
Bleached	3.95	@	4.50
Easy Bleaching	2.75	@	3.00
No. 1 strong unbleached	3.05	@	3.15
No. 2 strong unbleached	2.40	@	2.60
No. 1 Kraft	2.75	@	3.05
Sulphate—			
Bleached	3.90	@	4.00
(F. o. b. Pulp Mill)			
Sulphite (Domestic)—			
Bleached	3.90	@	4.50
Easy Bleaching Sulphite	2.90	@	3.05
News Sulphite	2.50	@	2.80
Mitscherlich	2.90	@	3.00
Kraft (Domestic)	2.65	@	2.90
Soda Bleached	4.00	@	4.20

Domestic Rags

New

Prices to Mill, f. o. b. N. Y.			
Shirt Cuttings—			
New White, No. 1	13.00	@	13.50
New White, No. 2	6.25	@	6.75
Silesias, No. 1	7.25	@	7.75
New Unbleached	10.50	@	11.00
Washables	5.26	@	6.15
Fancy	6.25	@	6.75
Blue Overall	7.15	@	8.15
New Blue	5.00	@	5.50
New Black Soft	4.65	@	5.15
New Light Seconds	2.75	@	3.00
O. D. Khaki Cuttings	4.04	@	4.15
Men's Corduroy	3.65	@	4.00
New Canvas	6.40	@	7.00
New Black Mixed	2.50	@	2.75
White, No. 1—			
Repacked	6.25	@	6.75
Miscellaneous	5.50	@	5.75
White, No. 2—			
Repacked	4.00	@	4.25
Miscellaneous	3.50	@	3.65
St. Soiled, White	2.80	@	3.00
Thirds and Blues—			
Repacked	3.00	@	3.25
Miscellaneous	2.35	@	2.45
Black Stockings	3.00	@	3.25
Roofing Rags—			
Cloth Strippings	2.30	@	2.40
No. 1	2.05	@	2.15
No. 2	1.25	@	1.35
No. 3	1.20	@	1.30
No. 4	1.20	@	1.30
No. 5A	1.50	@	1.60

Foreign Rags

New Light Silesias	7.00	@	7.75
Light Flannelettes	8.00	@	8.25
Unbl'chd Cottons	9.00	@	9.50
New White Cuttings	10.00	@	11.50
New Light Oxfords	7.25	@	7.75
New Light Prints	6.75	@	7.25
New Mixed Cuttings	2.50	@	2.75
New Dark Cuttings	2.00	@	2.25
No. 1 White Linens	9.00	@	10.00
No. 2 White Linens	7.00	@	8.00
No. 3 White Linens	6.00	@	6.50
No. 4 White Linens	4.00	@	5.00
Old Extra Light Prints	3.15	@	3.25
Ord. Light Prints	2.75	@	3.00
Med. Light Prints	2.40	@	2.50
Dutch Blue Cotton	3.25	@	3.50
German Blue Cottons	3.00	@	3.20
Ger. Blue Linens	3.00	@	3.25
Checks and Blues	2.00	@	2.15
Dark Cottons	2.00	@	2.10
Shoppery	1.75	@	1.85
French Blues	3.25	@	3.50

Bagging

Prices to Mill F. o. b. N. Y.			
Cunny No. 1—			
Foreign	1.30	@	1.40
Domestic	1.20	@	1.30
Wool, Tares, light	1.30	@	1.40
Wool, Tares, heavy	1.40	@	1.50
Bright Bagging	1.10	@	1.20
Sound Bagging	.90	@	1.00
Manila Rope—			
Foreign	6.25	@	6.50
Domestic	6.50	@	6.75
New Bu. Cut	2.15	@	2.25
Hessian Jute Threads—			
Foreign	2.00	@	2.25
Domestic	2.00	@	2.10

Twines

Cotton—(F. o. b. Mill)—			
No. 1	.30	@	.38
No. 2	.29	@	.31
No. 3	.34	@	.36
India, No. 6 basis—			
Light	.17	@	.18
Dark	.16	@	.17
B. C., 18 basis	.41	@	.42
A. B. Italian, 18 Basis	.51	@	.61
Finished Jute—			
Dark, 18 basis	.29	@	.30
Light, 18 basis	.26	@	.27
Jute Wrapping, 3-6 Ply—			
No. 1	.20	@	.23
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.15	@	.17
Fine Tube Yarn—			
5-ply and larger	.19	@	.21
4-ply	.20	@	.22
3-ply	.20	@	.22
Unfinished India—			
Basis	.16	@	.17
Paper Makers' Twine Balls	.09	@	.11
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.15	@	.16
Amer. Hemp, 6	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis	.14	@	.16
No. 2 Basis	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

Old Waste Papers

(F. o. b. New York)

Shavings—			
Hard, White, No. 1	4.05	@	4.15
Hard, White, No. 2	3.20	@	3.30
Soft, White, No. 1	3.10	@	3.30
Flat Stock—			
Stitches	1.70	@	1.80
Over Issue Mag.	1.70	@	1.80
Solid Flat Book	1.50	@	1.60
Crumbled No. 1	1.25	@	1.35
Solid Book Ledger	2.15	@	2.25
Ledger Stock	1.90	@	2.05
New B. B. Chips	.65	@	.80
Manilas—			
New Env. Cut	2.45	@	2.55
New Cut No. 1	1.75	@	2.00
Extra No. 1 old	1.30	@	1.40
Print	1.10	@	1.25
Container Board	.90	@	1.00
Bogus Wrapper	.90	@	1.00
Old Krafts Machine compressed bales	2.15	@	2.25
News—			
No. 1 White News	2.15	@	2.25
Strictly Overissue	1.15	@	1.25
Strictly Folded	.85	@	.95
No. 1 Mixed Paper	.70	@	.75
Common Paper	.50	@	.60

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill			
All Rag Bond	35	@	40
No. 1 Rag Bond	30	@	35
No. 2 Rag Bond	14	@	25
Water Marked Sulphite	9	@	12
Sulphite Bond	7½	@	10¾
Sulphite Ledger	9½	@	12
Superfine Writing	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book	5¾	@	7½
No. 1 S. & S. C. Book	6¾	@	7¾
Coated Book	8	@	10
Coated Label	8	@	10
News—Rolls, mill	3¾	@	4½
News—Sheets, mill	4	@	4¾
No. 1 Manila	5	@	6
No. 1 Fibre	5½	@	5¾
No. 2 Manila	4¾	@	5
Butchers' Manila	4½	@	
No. 1 Kraft	6½	@	6½
No. 2 Kraft	5¾	@	6¼
Wood Tag Boards	4½	@	6
Screenings	2¾	@	3
Boards, per ton—			
Plain Chip	50.00	@	52.50
Solid News	52.50	@	55.00
Manila Line Chip	60.00	@	62.50
Container Lined—			
85 Test	65.00	@	70.00
100 Test	70.00	@	75.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.25	@	3.35
No. 1 Soft Shav.	2.75	@	2.85
No. 1 Mixed	1.25	@	1.35
No. 2 Mixed	1.15	@	1.25
White Envel. Cuttings	3.40	@	3.50
Ledgers and Writings	1.65	@	1.70
Solid Books	1.65	@	1.75
No. 1 Books, Light	1.45	@	1.50
Blanks	2.30	@	2.35
Ex. No. 1 Manila	2.35	@	2.45
Manila Envelope Cuttings	2.45	@	2.50
No. 1 Manilas	1.35	@	1.40
Folded News (over issue)	1.20	@	1.25
Mixed Papers	.95	@	1.00
Old Newspapers—			
No. 1	1.10	@	1.15
No. 2	1.00	@	1.05
Straw Clippings	1.10	@	1.15
Binders' Clippings	1.10	@	—
Kraft	2.40	@	2.50
New Kraft Cuts	2.65	@	—
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	46.00	@	—
No. 2	44.00	@	—
No. 3	42.00	@	—
No. 4	42.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10	@	.60
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.06	@	.11
Book, S. S. & C.	.08	@	.15
Book, Coated	.08	@	.15
Coated Lithograph	.10	@	.15
Label	.08	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.10
No. 1 Kraft	—	@	.11
Common Bogus	.02½	@	.03
Straw Board	75.00	@	85.00
News Board	65.00	@	70.00
Chip Board	62.50	@	67.00
Wood Pulp Board. (Carload Lots)	1.25	@	1.50
Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	75.00	@	80.00
Tarred Felts—			
Regular	48.00	@	50.00
Slaters	54.00	@	56.00
Best Tarred, 1-ply (per roll)	1.35	@	1.50
Best Tarred, 2-ply (per roll)	1.00	@	1.15
Best Tarred, 3-ply	1.50	@	1.65

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.25	@	—
Domestic	1.20	@	1.25
Manila Rope	5.00	@	6.00
Sisal Rope	.75	@	.80
Mixed Rope	.75	@	.80
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy	2.50	@	2.75
Mixed Strings	.75	@	.80
No. 1, New Lt. Burlap	1.75	@	2.00
New Burlap Cuttings	1.75	@	2.10

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	4.25	@	4.40
No. 2, Hard White	3.50	@	3.75
No. 1 Soft White	3.25	@	3.50
No. 2 Soft White	2.15	@	2.25

(Continued on page 76)

Imports and Exports of Paper and Paper Stock

(*Continued from page 70*)

WOOD PULP

Mead Patton & Co., Inc., Westport, Hamosand, 85 bls. wood pulp, 14 tons.

Bulkley, Dunton & Co., Westport, Hudiksval, 1,000 bls. sulphite pulp, 203 tons.

Bulkley, Dunton & Co., by same, 1,000 bls. sulphite pulp, 203 tons.

Lagerloef Trading Co., Westport, Helsingfors, 150 bls. wood pulp.

Tanzer & Lane, W. Inskip, Rotterdam, 520 bls. wood pulp.

Guaranty Trust Co., Ida, Fallafos, 11,316 bls. mechanical pulp, 2,263 tons.

Guaranty Trust Co., Frode, Larvik, 4,934 bls. wood pulp.

Guaranty Trust Co., Frode, Drammen, 8,035 bls. wood pulp.

Mechanical & Metals National Bank, Natirar, Hango, 6,350 bls. mechanical pulp, 1,046 tons.

Johaneson, Wales & Sparre, Inc., Natirar, Gothenburg, 500 bls. sulphite pulp, 101 tons.

Johaneson, Wales & Sparre, Inc., Stockholm, Gothenburg, 175 bls. sulphate, pulp.

J. Andersen & Co., Pr. Wilson, Trieste, 1,586 bls. wood pulp.

M. Gottesman & Co., Inc., by same, 2,818 bls. wood pulp.

M. Gottesman & Co., Inc., Topdalsfjord, Christiania, 500 bls. wood pulp.

M. Gottesman & Co., Teresa, Trieste, 1,202 bls. wood pulp.

E. J. Keller Co., Inc., by same, 916 bls. wood pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Westport, Helsingfors, 1,677 bls., 169 tons.

Lagerloef Trading Co., W. Maximus, Helsingfors, 150 bls.

WOOD FLOUR

The Hausa Co., Westport, Helsingfors, 1,463 bags, 73,150 kilos.

Intercontinental Agencies, Inc., Archer, Hamburg, 1,204 bags.

CASEIN

Atterbury Bros., Inc., Sarcoxie, Bordeaux, 383 bags, 35,273 kilos.

PHILADELPHIA IMPORTS

WEEK ENDING MARCH 1, 1924

C. K. MacAlpine & Co., Ermland, Hamburg, 155 bls. wrapping paper.

C. K. MacAlpine & Co., by same, 240 rolls wrapping paper.

Japan Paper Co., Archer, Hamburg, 9 cs. wrapping paper.

Paper House of Penna., W. Maximus, Helsingfors, 2,531 bls. news print.

Paper House of Penna., by same, 61 rolls news print.

H. Reeve Angel & Co., Inc., by same, 42 rolls news print.

A. L. Diament & Co., M. Eldara, Havre, 2 cs. paper.

D. J. Murphy, by same, 177 bls. rags.

Waste Material Trading Corp., by same, 72 bls. rags.

Katzenstein & Keene, Inc., by same, 229 bls. rags.

Katzenstein & Keene, Inc., Breedyk, Rotterdam, 1,070 bls. rags.

Katzenstein & Keene, Inc., by same, 80 bls. bagging.

Katzenstein & Keene, Inc., M. Merchant, Manchester, 54 bls. new cuttings.

Katzenstein & Keene, Inc., Editor, Havre. 20 bls., bagging.

Katzenstein & Keene, Inc., by same, 175 bls. rags.

Katzenstein & Keene, Inc., Gand, Antwerp, 41 bls. rags.

Katzenstein & Keene, Inc., Mar Blanco, Barcelona, 287 bls. rags.

D. J. Murphy & Co., by same, 134 bls. rags.

E. J. Keller Co., Inc., by same, 524 bls. rags.

E. J. Keller Co., Inc., Eisenach, Stockholm, 490 bls. rags.

E. J. Keller Co., Inc., Boschdyk, Rotterdam, 884 bls. rags.

E. J. Keller Co., Inc., Pytheas, Genoa, 60 bls. thread waste.

E. J. Keller Co., Inc., W. Inskip, Rotterdam, 415 bls. rags.

E. J. Keller Co., Inc., W. Inskip, Mannheim, 782 bls. rags.

D. J. Murphy, W. Inskip, Rotterdam, 750 bls. rags.

Atlantic Trust Co., Sarcoxie, Bordeaux, 265 bls. rags.

Guaranty Trust Co., by same, 222 bls. rags.

American Express Co., by same, 46 bls. rags.

E. J. Keller Co., Inc., Sarcoxie, St. Mazaire, 398 bls. rags.

Waste Material Trading Corp., by same, 85 bls. rags.

J. S. Steer Co., Inc., Savannah, Leith, 125 bls. rags.

Philadelphia National Bank, by same, 54 bls. bagging.

D. M. Hicks, Fenchurch, Barcelona, 222 bls. rags.

Salomon Bros. & Co., Gand, Antwerp, 158 bls. rags.

Salomon Bros. & Co., Jean Laurent, Antwerp, 50 bls. rags.

Salomon Bros. & Co., Ermland, Hamburg, 159 bls. rags.

Castle & Overton, M. Merchant, Manchester, 140 bls. rags.

Castle & Overton, M. Shipper, Manchester, 200 bls. rags.

Castle & Overton, Gand, Antwerp, 230 bls. bagging.

Castle & Overton, Eisenbach, Hamburg, 122 bls. rags.

Castle & Overton, Missouri, Antwerp, 272 bls. rags.

Castle & Overton, London Mariner, London, 99 bls. rags.

Castle & Overton, Koln, Rotterdam, 312 bls. rags.

D. M. Hicks, W. Eldara, Havre, 123 coils old rope.

New York Trust Co., Savannah, Leith, 64 coils old rope.

Old Colony Trust Co., by same, 87 coils old rope.

Old Colony Trust Co., W. Eldara, Havre, 58 coils old rope.

E. J. Keller Co., Inc., by same, 27 coils old rope.

Castle & Overton, by same, 47 coils old rope.

Castle & Overton, Dania, Gothenburg, 3,160 bls. wood pulp.

M. Gottesman & Co., Inc., F. Bulow, Hamburg, 1,219 bls. wood pulp.

M. Gottesman & Co., Inc., Grete, Hamburg, 375 bls. wood pulp.

E. J. Keller Co., Inc., W. Inskip, Rotterdam, 590 bls. wood pulp, 120 tons.

Johanesson, Wales & Sparre, Inc., Westport, Hermosand, 4,800 bls. sulphite pulp, 812 tons.

Johanesson, Wales & Sparre, Inc., by same, 1,200 bls. sulphite pulp, 203 tons.

J. Anderson & Co., by same, 6,600 bls. sulphate pulp, 1,117 tons.

Bulkley, Dunton & Co., Westport, Hudeksoa', 4,000 bls. sulphate pulp, 812 tons.

Lagerloef Trading Co., W. Maximus, Hango, 450 bls. wood pulp, 76 tons.

Lagerloef Trading Co., W. Maximus, Helsingfors, 393 bls. mechanical pulp, 78 tons.

Lagerloef Trading Co., by same, 67 bls. wood pulp boards, 9 tons.

Lagerloef Trading Co., W. Maximus, Hango, 202 bls. wood pulp boards, 29 tons.

BOSTON IMPORTS

WEEK ENDING MARCH 1, 1924

Lagerloef Trading Co., Westport, Helsingfors, 1,217 bls. sulphite pulp, 203 tons.

Mead Patton & Co., Inc., Westport, Hermosand, 5,983 bls. sulphate pulp, 1,013 tons.

Lagerloef Trading Co., Natirar, Hango, 3,493 bls. sulphite pulp, 583 tons.

M. Gottesman & Co., Inc., Arkansa, Christiania, 1,250 bls. wood pulp.

M. Gottesman & Co., Inc., Trolleholm, Gothenburg, 762 bls. wood pulp.

E. J. Keller Co., Inc., by same, 668 bls. wood pulp.

E. J. Keller Co., Inc., Ermland, Hamburg, 173 bls. rags.

G. M. Wheelbright Paper Co., Barbadian, London, 148 bls. waste paper.

T. D. Downing & Co., by same, 72 bls. rags.

C. H. Dexter Sons, by same, 61 bls. rags.

G. M. Graves Co., by same, 15 bls. rags.

Crane Co., by same, 13 bls. rags.

Katzenstein & Keene, Inc., Gattymore, Glasgow, 40 bls. rag.

Katzenstein & Keene, Inc., Caledonian, Liverpool, 54 bls. new cuttings.

Katzenstein & Keene, Inc., Darian, London, 51 bls. new cuttings.

Brown Bros. Co., Barbadian, London, 363 coils old rope.

Brown Bros. Co., by same, 367 bales old rope.

PORTLAND, MAINE, IMPORTS

WEEK ENDING MARCH 1, 1924

Wood Pulp Trading Co., Ltd., Nord Amerika, 4,605 dry sulphite pulp.

Wood Pulp Trading Co., Ltd., by same, 11,288 bls. mechanical pulp.

NEWPORT NEWS IMPORTS

WEEK ENDING MARCH 1, 1924

Johaneson, Wales & Sparre, Inc., Olson, Hermosand 4,800 bls. dry sulphate pulp, 812 tons.

Johaneson, Wales & Sparre, Inc., by same, 6,750 bls. dry sulphite pulp, 1,143 tons.

BALTIMORE IMPORTS

WEEK ENDING MARCH, 1, 1924

Wood Pulp Trading Co., Ltd., F. Bulow, Hamburg, 6,072 bls. dry sulphite pulp.

M. Gottesman & Co., Inc., Grete, Hamburg, 2,958 bls. dry wood pulp.

M. Gottesman & Co., Inc., F. Bulow, Hamburg, 2,439 bls. wood pulp.

M. Gottesman & Co., Inc., Trolleholm, Gothenburg, 2,500 bls. wood pulp.

M. Gottesman & Co., Inc., Virginia, Christiania, 2,500 bls. wood pulp.

M. Gottesman & Co., Inc., Polarhanet, Sundsvall, 10,000 bls. wood pulp.

Nilsen Lyon & Co., Inc., Hjelmaren, Helsingfors, 1,020 bls. wood pulp.

Johaneson, Wales & Sparre, Inc., Gustafsholm, Gothenburg, 2,650 bls. sulphite pulp.

Lagerloef Trading Company, Eisenach, 1,080 bls., 185 tons wood pulp.

A. Brown & Sons, Barbadian, Antwerp, 1,642 bls. rags.

NEW ORLEANS IMPORTS

WEEK ENDING MARCH 1, 1924

Katzenstein & Keene, Inc., Saugerties, Barcelona, 410 bls. bagging.

Castle & Overton, Bruxelles, Havre, 223 bls. rags.

Castle & Overton, Freifeld, Hamburg, 219 bls. rags.

Lagerloef Trading Company, Emergency Aid, 2,002 bls., 344 tons wood pulp.

Lagerloef Trading Company, West Jaffry, 3,042 bls., 500 tons wood pulp.

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Importers of Chemical Pulps

BLEACHED and UNBLEACHED

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Sarpsborg, Norway; Forshaga, and Edsvalla, Sweden.
Kronstädter Papierstoff — Fabriks Action — Gesellschaft
Mills at Tuciansky, Sv. Martin

Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, MARCH 5, 1924.

The chemical market still keeps up fairly strong with the dealers and manufacturers reporting a fair amount of business. Because of great activity outside of the paper industry the price lists remain unchanged and even the manufacturers of paper are showing more inclination to come into the local market for futures than they have for a long time. There is no further tendency among dealers to grab business from one another by radical price cuts and this factor is also tending to steady down the market a good deal.

BLEACHING POWDER.—Bleach is still in the good demand that it was a week ago with no further changes in price following the rise of ten days back. The call for bleach is certainly considerably greater than it has been for some time and manufacturers who failed to avail themselves of the low prices of a little while ago are now at a severe disadvantage. It is quoted at from 1.65 to 1.75 cents a pound.

CAUSTIC SODA.—Caustic is not in much better demand than it was about two weeks ago although there are definite signs that the paper industry is showing considerably more interest in it than has been the general rule for the past few months. The price is quoted at from 3.10 to 3.15 cents a pound on a flat basis at the works.

CASEIN.—Although casein is not quite up to the other chemicals so far as demand is concerned it has recovered considerably from its lassitude of a few weeks back and is now fairly firm at from 13 to 15 cents a pound.

CHINA CLAY.—A good demand for china clay has shown in the local markets during the past week both in the imported and in the domestic grades. Buying is good not only in the paper industry, but in the several others principally pottery which buy this product in large quantities. The price is quoted at from $12 to $15 a ton on the domestic grades and $16 to $20 a ton on the various imported grades.

CHLORINE.—Although chlorine has not continued to improve after its upward rise of a short time ago the dealers and manufacturers report that they are doing a business that is good enough to keep them busy although they say that there is still some room for improvement. The price remains at 3.50 to 4.50 cents a pound in tanks.

ROSIN.—In some of the grades naval stores are in good demand while in others there is still a good bit of room for improvement. As far as the paper industry is concerned the buying still keeps up at about the same level. The price is at about $5.90 to $6.00 in 280 pound lots.

SALTCAKE.—While there is a good demand for saltcake in the glass industry there seems to be not so great a call for this commodity among paper manufacturers. The price remains firm at from $20 to $23 a ton which is very firm because of the large sales which are constantly being made.

SODA ASH.—There is still a good demand for soda ash and the allied chemicals in the paper industry with buyers often bidding against each other for lots in the open market. The price remains at 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—Alumina still is in fair demand with paper manufacturers evincing interest in buying orders for long periods. The price is 1.30 to 1.40 cents a pound on the commercial grades and 2.10 to 2.25 cents on the iron free.

Fire Destroys Srere Bros. Mill

FRANKLIN, Ohio, March 3, 1924.—Fire at the mill of Srere Brothers Company, caused a loss of $80,000. The loss was confined to the two-story mill building and to the stock of rags, paper and other material. Spontaneous combustion is believed to have been the cause.

Market Quotations

(Continued from page 73)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.25	@	2.50
Writing Paper	2.00	@	2.25
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.75	@	2.00
Container Manila	1.25	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.25	@	1.35
Old Newspaper	.90	@	1.00
No. 1 Mixed Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip.	1.00	@	1.10

Domestic Rags—New.
Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	—
Silesias, No. 1	.07¼	@	.07½
New Unbleached	.10	@	.11
Washables	.04½	@	—
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.03¼	@	.03¾
New Black Soft	.05¾	@	.06½
New Light Seconds	.02¾	@	.03¼
Khaki Cuttings	.11	@	.04½
Corduroy	.03½	@	.04
New Canvas	.03¾	@	.03¾
New Black Mixed	.04	@	—
Old White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04½	@	.04¾
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	2.15	@	2.35
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	.75	@	.90
No. 4	1.15	@	1.20
No. 5A	1.10	@	—
B			nominal
C			nominal

BOSTON

Paper

Bonds	.09	@	.63
Ledgers	.09	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.12
Books, M. F.	.07¼	@	.09½
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.00	@	4.50
Manilas—			
No. 1 Manila	6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	—
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	42.50	@	45.00
News, Vat Lined	45.00	@	—
Wood, Vat Lined	52.50	@	55.00
Filled News Board	45.00	@	50.00
Solid News Board, No. 4 Finish	65.00	@	—
S. Manila Chip	62.50	@	70.00
Pat. Coated News	80.00	@	90.00

Old Papers

Mixed paper	.75	@	.77½
Folded news	.95	@	.97½
Soft white shavings	3.00	@	3.15
Hard white shavings	3.75	@	4.00
Kraft paper	2.05	@	2.15
Ledger and letter	2.15	@	2.35
No. 1 books and magazines	1.60	@	1.70
Manila paper No. 1	1.75	@	1.80
Solid ledgers	2.50	@	2.75
No. 1 roofing rags	2.60	@	2.70
No. 2 roofing rags	2.50	@	2.60
No. 3 gunny bagging	1.35	@	1.40
No. 4 Brussels and hard back carpets	1.60	@	1.70
No. 5 roofing rags			
A's	1.90	@	2.00
B's	—	@	—
C's	—	@	—
No. 6 City dump rags	—	@	—
Manila rope, domestic	.06½	@	.06¾
Mixed strings	1.15	@	1.25
Jute strings	1.30	@	1.40

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rap	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	35.00	@	38.00
Sulphite easy bleaching	55.00	@	63.00
Sulphite news grade	52.00	@	55.00
Sulphite, bleached	76.00	@	80.00
Sulphate	60.00	@	62.00

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut.	3.65	@	3.80
Soft White Book shavings	3.20	@	3.30
White Blk. News	2.15	@	2.20
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.60	@	—
Light and Crumpled Book Stock	1.45	@	—
Ledgers and Writings	2.00	@	—
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut	—	@	2.00
Printed Manilas	1.55	@	—
Kraft	2.05	@	—
News and Scrap—			
Strictly Overissue	.90	@	—
Folded News	.90	@	—
No. 1 Mixed Papers	—	@	.75

Domestic Rags—
Price to mills, f. o. b. Toronto

	Per lb.		
No. 1 White shirt cuttings	.12¼	@	.13
No. 2 White shirt cuttings	.06½	@	.07
Fancy shirt cuttings	.06¾	@	.06½
No. 1 Old Whites		@	
Third and blues	.03¼	@	.03½
	Per cwt.		
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Manila rope	.06¼	@	.06½
No. 3	1.35	@	—
Gunny Bagging	.01¼	@	—